United States Department of Agriculture

Soil Conservation Service

In cooperation with Louisiana Agricultural Experiment Station and Louisiana State Soil and Water Conservation Committee

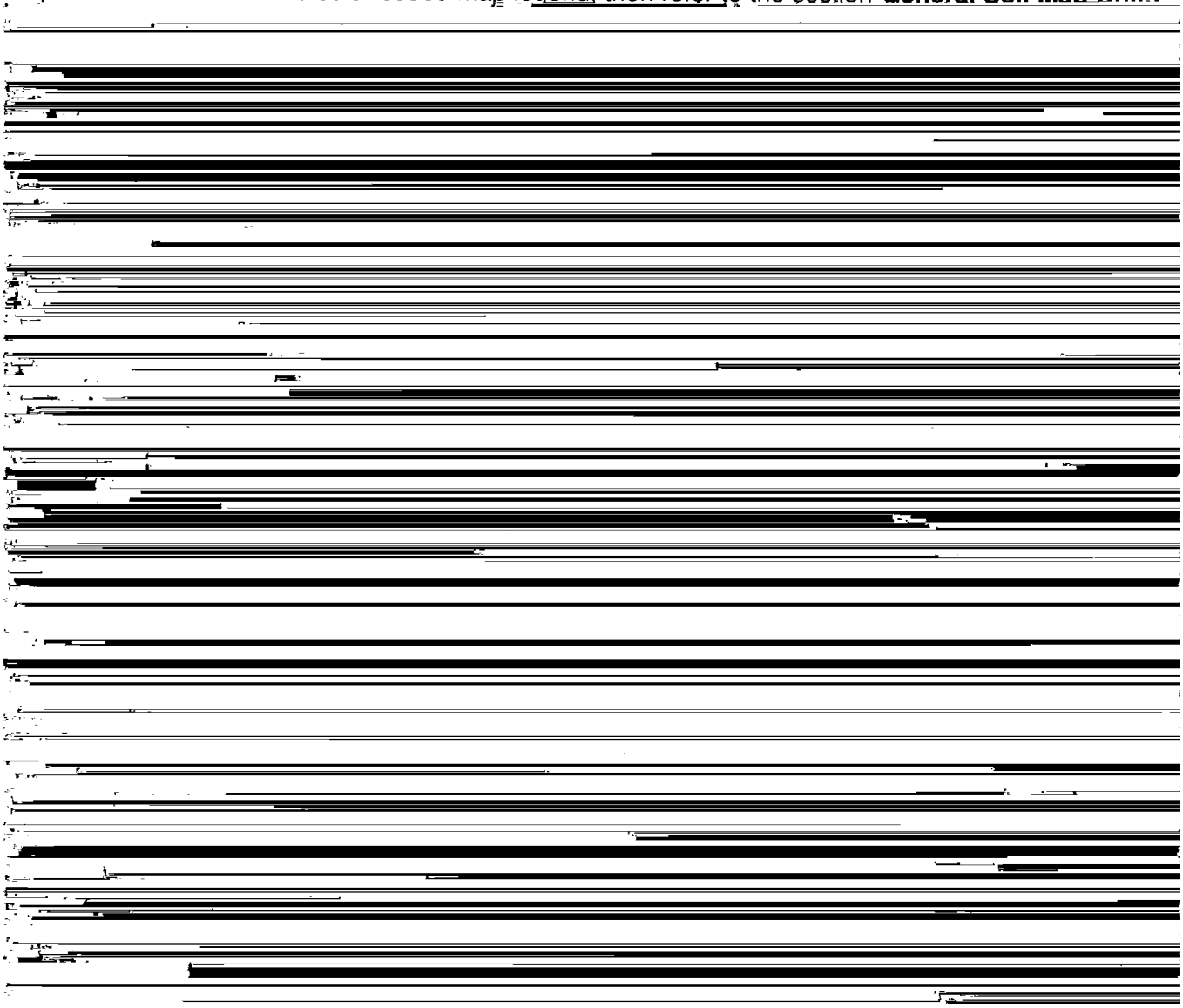
Soil Survey of St. Tammany Parish, Louisiana

How To Use This Soil Survey

General Soil Map

The general soil map, which is the color map preceding the detailed soil maps, shows the survey area divided into groups of associated soils called general soil map units. This map is useful in planning the use and management of large areas.

To find information about your area of interest, locate that area on the map, identify the name of the map unit in the area on the color-coded map legend, then refer to the section **General Soil Map Units**



This soil survey is a publication of the National Cooperative Soil Survey, a joint effort of the United States Department of Agriculture and other federal agencies, state agencies including the Agricultural Experiment Stations, and local agencies. The Soil Conservation Service has leadership for the federal part of the National Cooperative Soil Survey.

Major fieldwork for this soil survey was completed in 1984. Soil names and descriptions were approved in 1984. Unless otherwise indicated, statements in this publication refer to conditions in the survey area in 1984. This soil survey was made cooperatively by the Soil Conservation Service, the Louisiana

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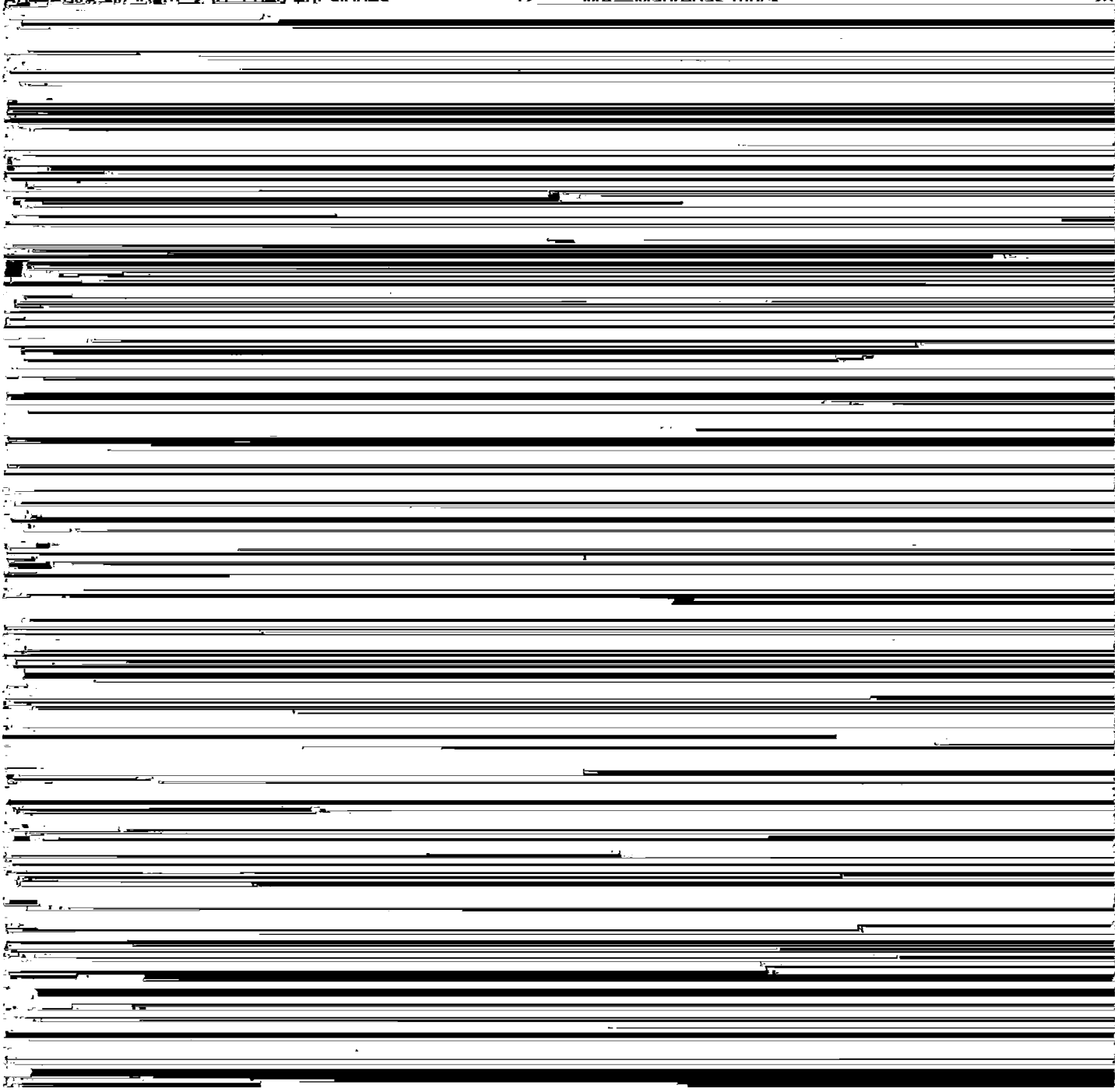


Summary of Tables

Foreword

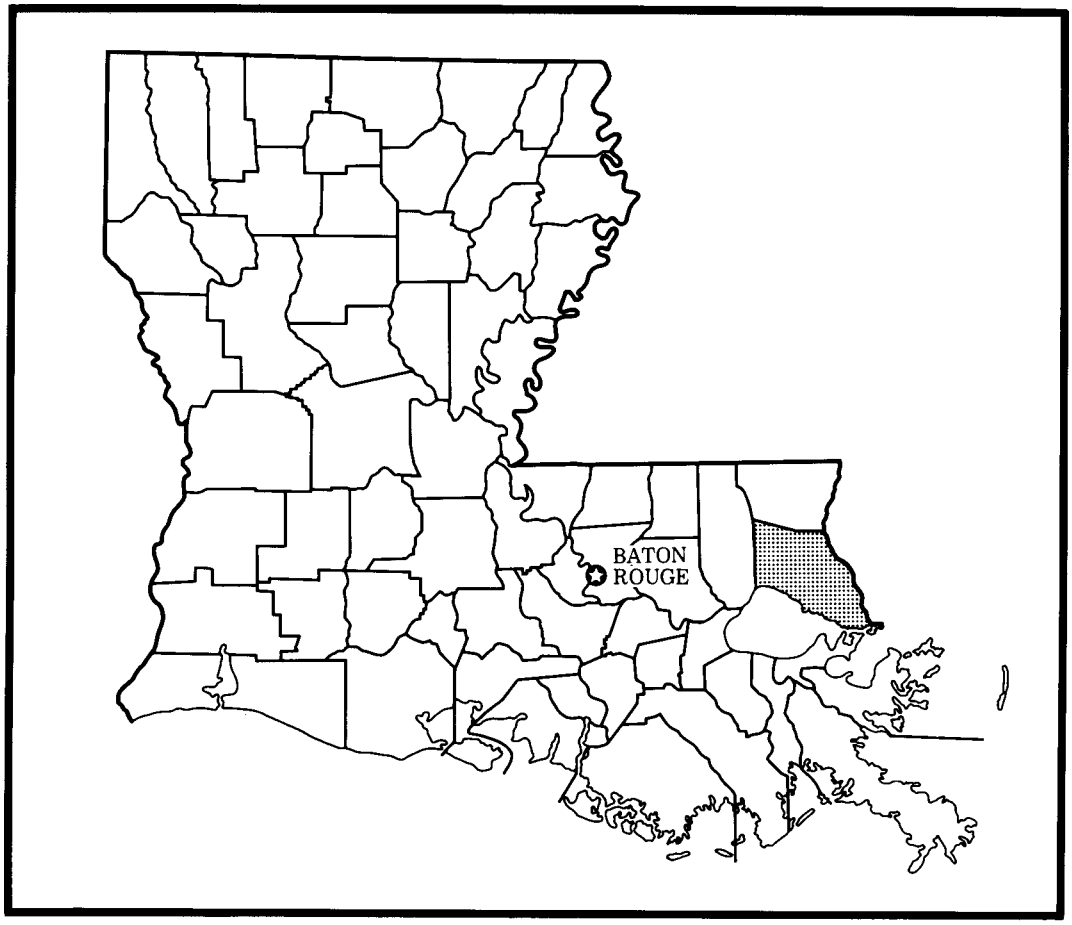
This soil survey contains information that can be used in land-planning programs in St. Tammany Parish. It contains predictions of soil behavior for selected land uses. The survey also highlights limitations and hazards inherent in the soil, improvements needed to overcome the limitations, and the impact of selected land uses on the environment.

This soil survey is designed for many different users. Farmers, ranchers, foresters, and agronomists can use it to evaluate the potential of the soil and the management needed for maximum food and fiber production. Planners, community officials, engineers, developers, builders, and home buyers can use the survey to plan land use, select sites for construction, and identify special practices needed to insure proper performance. Conservationists, teachers, students, and specialists in recreation, wildlife management, waste disposal, and pollution control can use the survey to help them understand, protect, and enhance the environment.

Great differences in soil properties can occur within short distances. Some soils are seasonally wet or subject to flooding. Some are too unstable to be used as a foundation for buildings or roads. Clayey or wet soils are poorly suited to use as septic tank absorption fields. A high water table makes a soil poorly suited to basements or underground installations.

These and many other soil properties that affect land use are described in this soil survey. Broad areas of soils are shown on the general soil map. The location of each soil is shown on the detailed soil maps. Each soil in the survey area is described. Information on specific uses is given for each soil. Help in using this publication and additional information are available at the local office of the Soil Conservation Service or the Cooperative Extension Service.

Horace J. Austin
State Conservationist
Soil Conservation Service



Location of St. Tammany Parish in Louisiana.

Soil Survey of St. Tammany Parish, Louisiana

By Larry Trahan, Jeanette J. Bradley, Lyfon Morris,
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United States Department of Agriculture, Soil Conservation Service
In cooperation with Louisiana Agricultural Experiment Station and
Louisiana State Soil and Water Conservation Committee

ST. TAMMANY PARISH is in southeastern Louisiana. It has a total area of 721,830 acres, of which 562,749

Climate

1-day rainfall during the period of record was 6.5 inches at Covington, Louisiana, on December 6, 1953. Thunderstorms occur on about 70 days each year, and most occur in summer.

Snowfall is rare. In 85 percent of the winters, there is no measurable snowfall. In 15 percent, the snowfall, usually of short duration, is more than 1 inch. The heaviest 1-day snowfall on record was more than 3 inches.

The average relative humidity in midafternoon is about 60 percent. Humidity is higher at night, and the average at dawn is about 90 percent. The sun shines 65 percent of the time possible in summer and 55 percent in winter. The prevailing wind is from the southeast. Average windspeed is highest, 10 miles per hour, in spring.

Severe local storms, including tornadoes, strike occasionally in or near the area. They are of short duration, variable, and cause spotty damage. Every few years in summer or autumn, a tropical depression or remnant of a hurricane that has moved inland causes extremely heavy rains for 1 to 3 days.

Agriculture

Most of St. Tammany Parish is in forests. Less than 10,000 acres is used for row crops, such as soybeans and corn. Numerous small plots are used for truck and garden crops. Farms in the parish are small, ranging from 5 to 40 acres.

Pastureland and nurseries are important agricultural uses on the terrace uplands. Most pastureland is used for grazing horses (fig. 1). A small acreage is used for grazing cattle. Numerous nurseries are in the Folsom area, and stock is shipped throughout the United States.

The present trend in St. Tammany Parish indicates an increase in the number of small farms, a net reduction in cropland acres, and an increase in urban and built-up areas. Residential areas are rapidly increasing along major highways as residents of Baton Rouge and New Orleans seek a more rural environment in which to live.

History

St. Tammany Parish is in an area that was part of the Mississippi Valley Territories claimed for France by LaSalle in 1682.

Indians lived in the area before LaSalle's arrival. Archaeological evidence suggests that former inhabitants were of the prehistoric Tchefuncta, Marksville, Troyville, Coles Creek, and Plaquemine-Historic cultures. When the French settlers arrived, the Acolapissa Indians were living in the area *(11)*.

France lost possession of the area to the British. Following the American Revolution, the Spanish helped to drive the British out. The area was then claimed for Spain. In 1810, the settlers revolted against Spain and proclaimed the area to be the West Florida Republic.

Figure 1.—This bahiagrass pasture is in an area of Ruston fine sandy loam, 1 to 3 percent slopes. The more sloping soil on each side of the drainageway is Ruston fine sandy loam, 3 to 6 percent slopes.

The settlers then petitioned the United States for admittance.

Louisiana became a state in 1812, and the boundaries of St. Tammany Parish were established. The original parish included all of present-day Washington Parish and part of Tangipahoa Parish.

The first parish courthouse was erected at Enon on the Bogue Chitto River in present-day Washington Parish. In 1817, the parish seat was moved to Claiborne, across the Bogue Falaya River from Covington. Covington, the present parish seat, was established in 1938 *(12)*.

St. Tammany Parish is named for a Delaware Indian chief called Tamanand, an ally of the settlers in New York. Governor W.C.C. Claiborne, first governor of Louisiana, bestowed the name St. Tammany on the Parish although Chief Tamanand had never lived in this

Pontchartrain. Lake Pontchartrain and the numerous streams flowing into the lake are subject to daily tidal fluctuations. Therefore, the surface waters of Lake Pontchartrain and the lower ends of streams that flow into the lake range from fresh to brackish, depending upon the season and the amount of rainfall received.

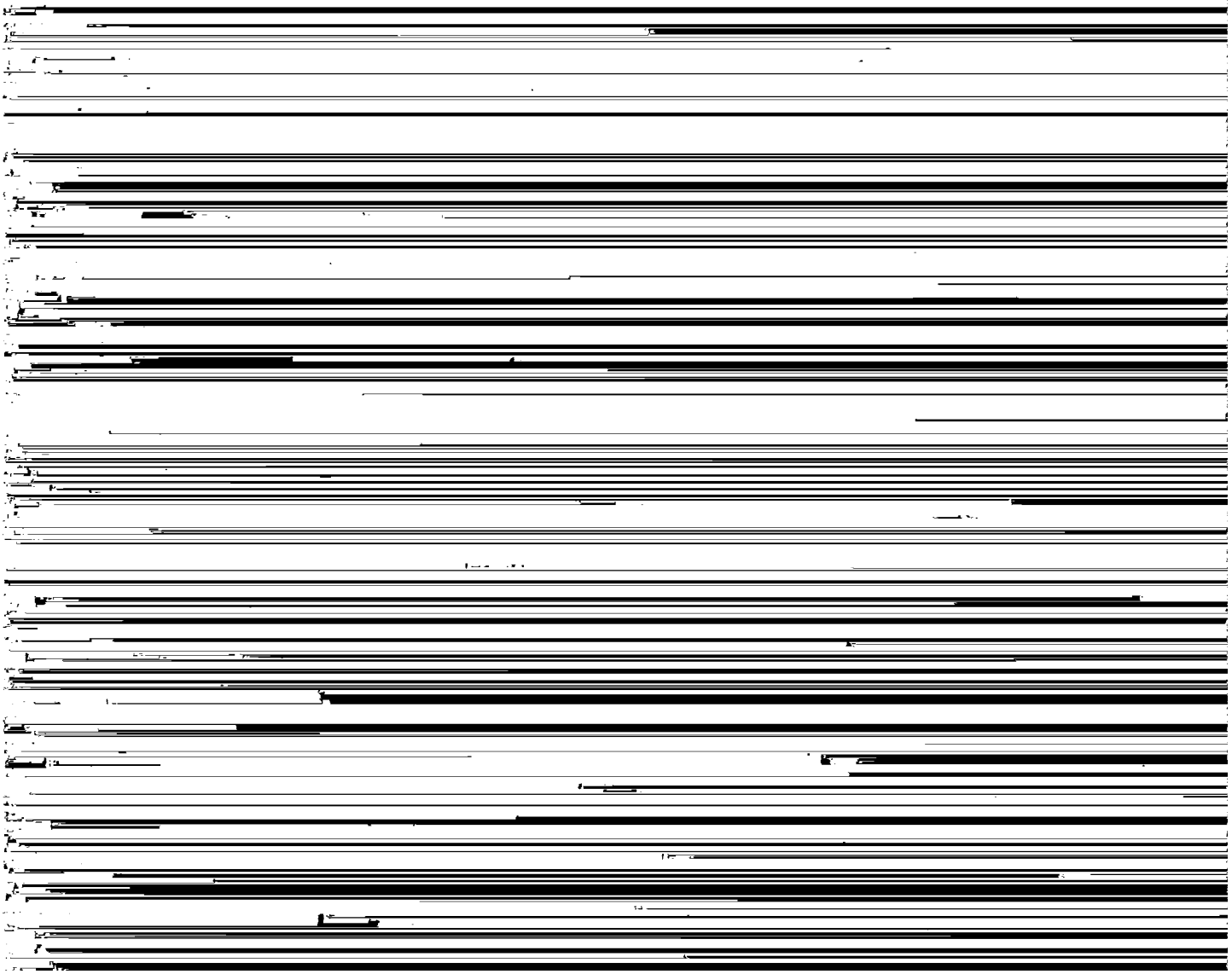
Ground Water. Wells in St. Tammany Parish yield large quantities of soft water from sands of Miocene, Pliocene, and Quaternary Ages. Wells generally range in depth from 400 to 2,400 feet; the deepest is about 2,800 feet. Industrial wells have an average yield of about 1,000 gallons per minute (gpm). The largest yield is a municipal supply well at Slidell with a flow rate of 3,200 gpm. Flowing artesian wells are common in St. Tammany Parish. The base of freshwater aquifers in St. Tammany Parish is at greater depths than any known aquifers in Louisiana. Near the eastern border of the parish, the

Soil scientists recorded the characteristics of the soil profiles that they studied. They noted soil color, texture, size and shape of soil aggregates, distribution of plant roots, acidity, and other features that enable them to identify soils. After describing the soils in the survey area and determining their properties, the soil scientists assigned the soils to taxonomic classes (units). Taxonomic classes are concepts. Each taxonomic class has a set of soil characteristics with precisely defined limits. The classes are used as a basis for comparison to classify soils systematically. The system of taxonomic classification used in the United States is based mainly

and rivers, all of which help in locating boundaries accurately.

Map Unit Composition

A map unit delineation on a soil map represents an area dominated by one major kind of soil or an area dominated by several kinds of soil. A map unit is identified and named according to the taxonomic classification of the dominant soil or soils. Within a taxonomic class there are precisely defined limits for the properties of the soils. On the landscape, however, the



General Soil Map Units

The general soil map at the back of this publication shows broad areas that have a distinctive pattern of soils, relief, and drainage. Each map unit on the general soil map is a unique natural landscape. Typically, a map unit consists of one or more major soils and some minor soils. It is named for the major soils. The soils making up one unit can occur in other units but in a different pattern.

The general soil map can be used to compare the suitability of large areas for general land uses. Areas of suitable soils can be identified on the map. Likewise, areas where the soils are not suitable can be identified.

Because of its small scale, the map is not suitable for planning the management of a farm or field or for selecting a site for a road or a building or other structure. The soils in any one map unit differ from place to place in slope, depth, drainage, and other characteristics that affect management.

The soils in the survey area vary widely in their potential for major land uses. Table 4 shows the extent of the map units shown on the general soil map. It lists the suitability of each, in relation to that of the other map units, for specified uses and shows soil properties that

parish. Small acreages are used as pastureland or cropland.

1. Savannah-Ruston

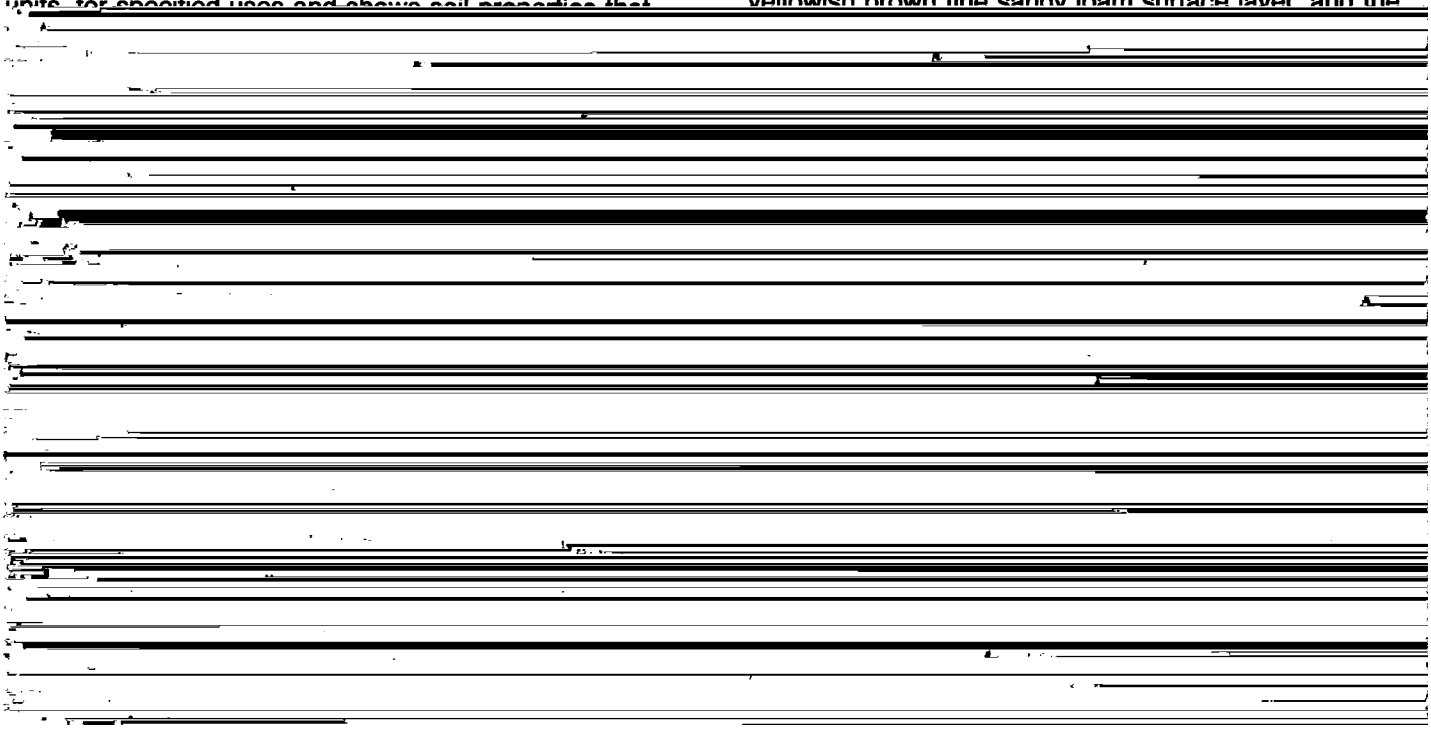
Very gently sloping and gently sloping, moderately well drained and well drained soils that are loamy throughout

The soils of this map unit are on very gently sloping and gently sloping ridgetops and side slopes on the terrace uplands. They are at the highest elevation in the parish. Slopes range from 1 to 6 percent.

This map unit makes up about 15 percent of the land area of the parish. It is about 91 percent Savannah soils, 7 percent Ruston soils, and 2 percent soils of minor extent.

The Savannah soils are moderately well drained. They have a dark grayish brown fine sandy loam surface layer. The subsoil is yellowish brown, mottled clay loam in the upper part, and in the lower part is a fragipan of mottled brownish and reddish clay loam.

The Ruston soils are well drained. They have a dark yellowish brown fine sandy loam surface layer, and the

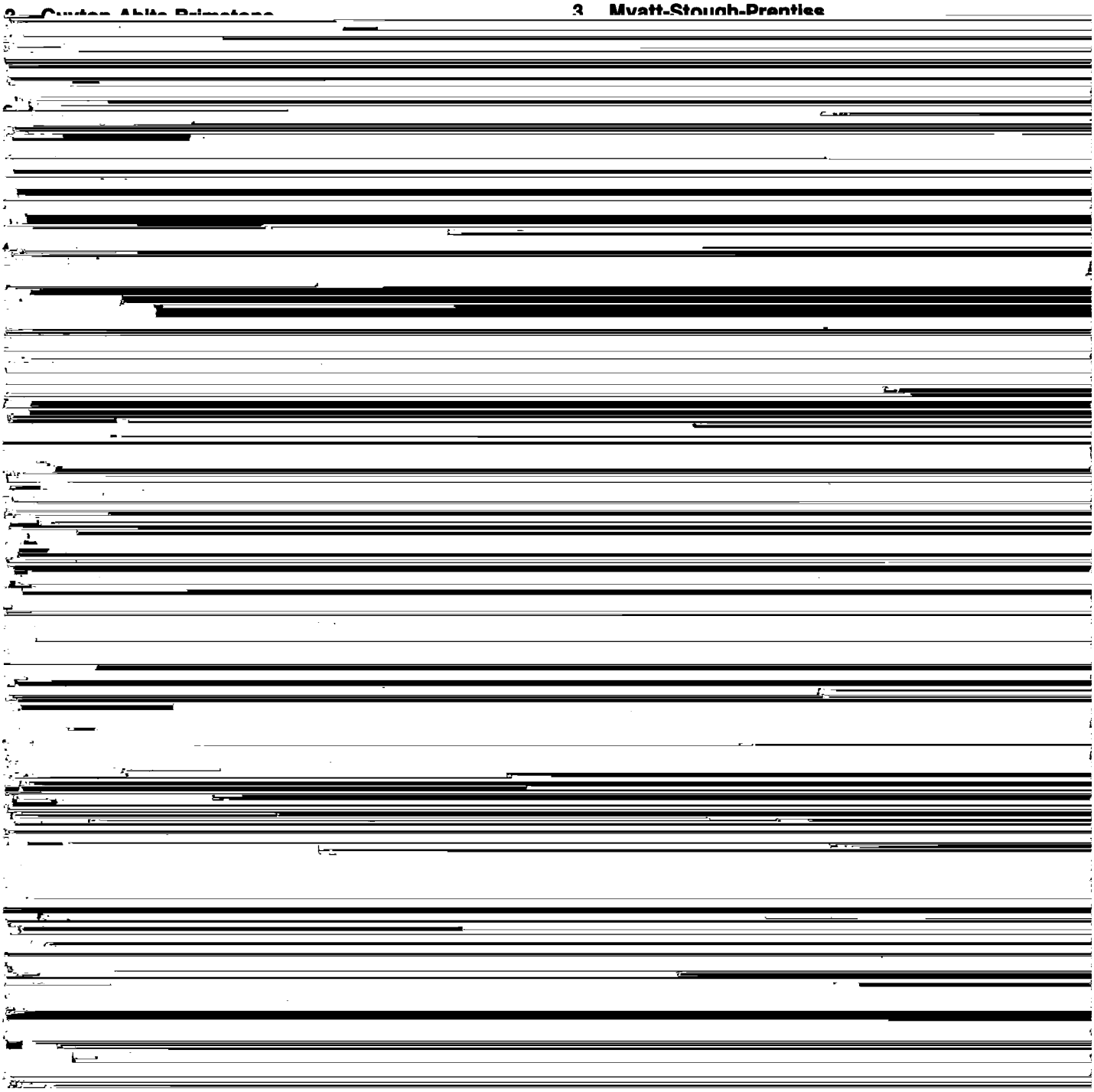


Soils of the Terraces

This group consists of loamy soils on broad stream terraces or marine terraces. The three map units in this group make up about 55.5 percent of the land area of the parish. Most of the acreage is used as woodland. Small acreages are used as pastureland or cropland. Wetness and flooding are the main limitations.

crops. A surface drainage system and fertilizer are needed for optimum crop and forage production.

These soils are poorly suited to urban uses and intensive recreation areas, such as playgrounds and campsites. The main limitations are wetness, slow permeability, and low strength for roads. In addition, flooding is a hazard.



These soils are poorly suited to urban uses and moderately well suited to intensive recreation areas, such as playgrounds and campsites. Wetness and moderately slow permeability are the main limitations. In addition, flooding is a hazard.

4. Cahaba-Prentiss-Latonia

Very gently sloping and level, well drained and moderately well drained soils that have a loamy surface layer and subsoil

The soils of this map unit are on stream terraces mainly along the Bogue Chitto and Pearl Rivers. The landscape is long, smooth slopes and gentle rises or low ridges. Slopes range from 0 to 3 percent.

This map unit makes up about 5 percent of the land area of the parish. It is about 39 percent Cahaba soils, 30 percent Prentiss soils, 26 percent Latonia soils, and 5 percent soils of minor extent.

The Cahaba soils are very gently sloping and well

5. Arkabutla-Rosebloom

Nearly level, somewhat poorly drained and poorly drained soils that are loamy throughout

The soils of this map unit are on the flood plains of the Pearl River and its tributaries. They are frequently flooded. Slopes range from 0 to 2 percent.

This map unit makes up about 10 percent of the land area of the parish. It is about 50 percent Arkabutla soils, 40 percent Rosebloom soils, and 10 percent soils of minor extent.

The Arkabutla soils are somewhat poorly drained. They are on slight rises. They have a dark brown silt loam or silty clay loam surface layer. The subsoil is brownish and grayish, mottled silt loam and silty clay loam.

The Rosebloom soils are poorly drained. They are in low positions on the landscape. They have a brown, mottled silt loam surface layer, and the subsoil is grayish,

Of minor extent are the Cahaba, Arat, Guyton, and Myatt soils. Cahaba soils are well drained and are on ridges. Arat soils are very poorly drained and are in backswamps. Guyton and Myatt soils are poorly drained and are in low positions on the landscape. Also included are large areas of Arat and Kenner soils near the mouth of Lacombe Bayou.

Most of the soils in this map unit are used as woodland. A small acreage is used as pasture.

as urban land. Saltwater has intruded into some areas, and brackish marsh vegetation has become established.

These soils are well suited to use as habitat for wetland wildlife and provide habitat for many species. Hunting, fishing, and other outdoor activities are popular.

These soils are not suited to crops, pasture, woodland, and urban uses. Flooding, wetness, and low soil strength are too severe.

Of minor extent are the Allemands, Kenner, and Larose soils in adjacent areas of freshwater marsh. These soils are very poorly drained. Many small ponds and perennial streams are in most areas.

Most of the acreage in this map unit is in native vegetation and is used for recreation and as habitat for wetland wildlife.

The soils of this map unit are well suited to use as habitat for wetland wildlife and they provide suitable habitat for many species. Hunting, fishing, and other outdoor activities are popular in most of the areas. This map unit is part of the estuary that helps support marine life in the Gulf of Mexico.

These soils are not suited to crops, pasture, woodland, or urban uses. Flooding, wetness, salinity, and low soil strength are too severe.

10. Barbary-Maurepas

Level, very poorly drained soils that are clayey or mucky throughout; in swamps

The soils of this map unit are in swamps that are frequently flooded and ponded most of the time. Elevation ranges from sea level to about 2 feet above sea level. Slope is less than 1 percent.

This map unit makes up about 0.05 percent of the land area of the parish. It is about 50 percent Barbary soils, 42 percent Maurepas soils, and 8 percent soils of minor extent.

The Maurepas soils are organic soils and they are very fluid muck throughout.

The Barbary soils are mineral soils and they are grayish, very fluid clay throughout.

Of minor extent are the Allemands, Kenner, and Guyton soils. Allemands and Kenner soils are very poorly drained and are in nearby marshes. Guyton soils are swamps. The soils are protected from most floods by levees and are drained by pumps. Flooding is rare, but it can occur during severe storms or when protection levees fail. The map unit in this group makes up about 2 percent of the parish. The area is used about equally as pasture and for urban uses. Wetness, low soil strength, subsidence, the shrinking and swelling of the subsoil, and the hazard of flooding are the main limitations if the soils are used for urban development.

11. Aquents-Allemands-Harahan

Level to gently sloping, poorly drained soils; some vary in texture throughout, some have a mucky surface layer and clayey underlying material, and some have a clayey surface layer and subsoil

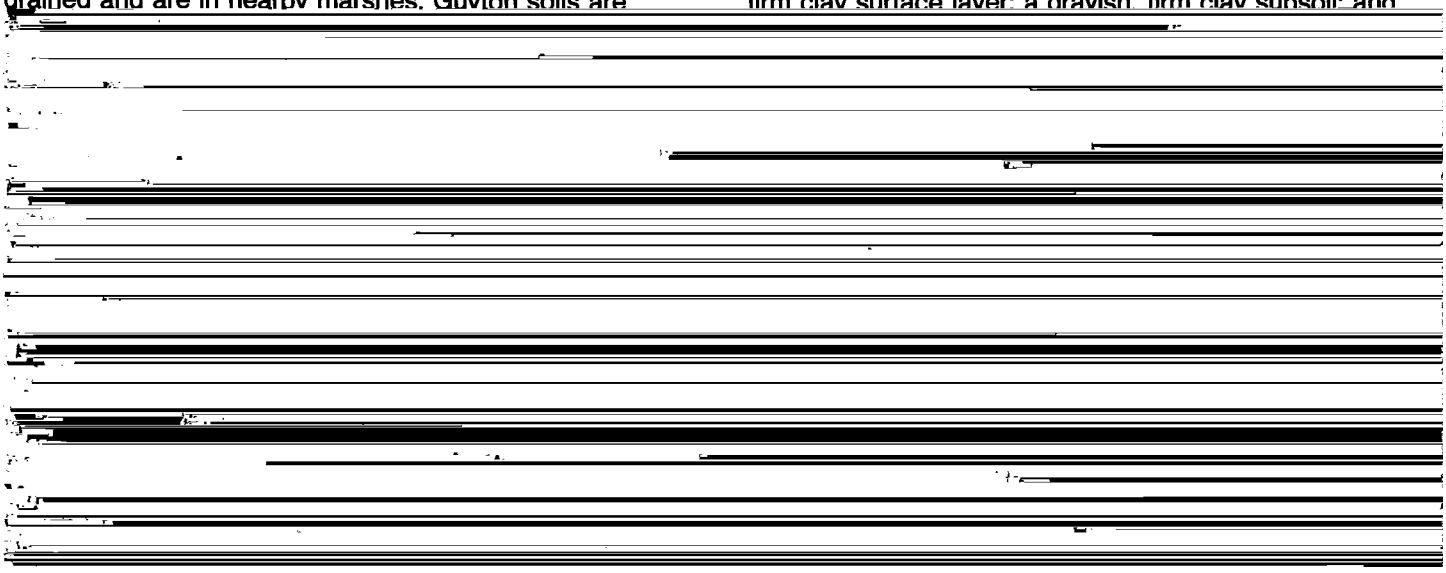
The soils of this map unit are in former marshes and swamps that are protected from flooding by levees and drained by pumps. Flooding is rare, but it can occur during severe storms or when protection levees fail. Elevation ranges from 5 feet above sea level to 5 feet below sea level. Slopes range from 0 to 5 percent.

This map unit makes up about 2 percent of the land area of the parish. It is about 41 percent Aquents soils, 26 percent drained Allemands soils, 14 percent Harahan soils, and 19 percent soils of minor extent.

The Aquents soils consist of spoil material dredged from nearby marshes and swamps during the construction and maintenance of waterways. Throughout, they are stratified mucky, clayey, sandy, and loamy soils.

The drained Allemands soils have a moderately thick surface layer of muck and underlying material of very fluid clay. They were formerly in marshes.

The Harahan soils are in former swamps. They have a firm clay surface layer; a grayish, firm clay subsoil; and



Detailed Soil Map Units

The map units on the detailed soil maps at the back of this survey represent the soils in the survey area. The map unit descriptions in this section, along with the soil maps, can be used to determine the suitability and potential of a soil for specific uses. They also can be used to plan the management needed for those uses. More information on each map unit, or soil, is given under "Use and Management of the Soils."

Each map unit on the detailed soil maps represents an area on the landscape and consists of one or more soils for which the unit is named.

A symbol identifying the soil precedes the map unit name in the soil descriptions. Each description includes general facts about the soil and gives the principal hazards and limitations to be considered in planning for specific uses.

Soils that have profiles that are almost alike make up a *soil series*. Except for differences in texture of the surface layer or of the underlying material, all the soils of a series have major horizons that are similar in composition, thickness, and arrangement.

Soils of one series can differ in texture of the surface layer or of the underlying material. They also can differ in slope, salinity, wetness, degree of erosion, and other characteristics that affect their use. On the basis of such differences, a soil series is divided into *soil phases*. Most of the areas shown on the detailed soil maps are phases of soil series. The name of a soil phase commonly indicates a feature that affects use or management. For

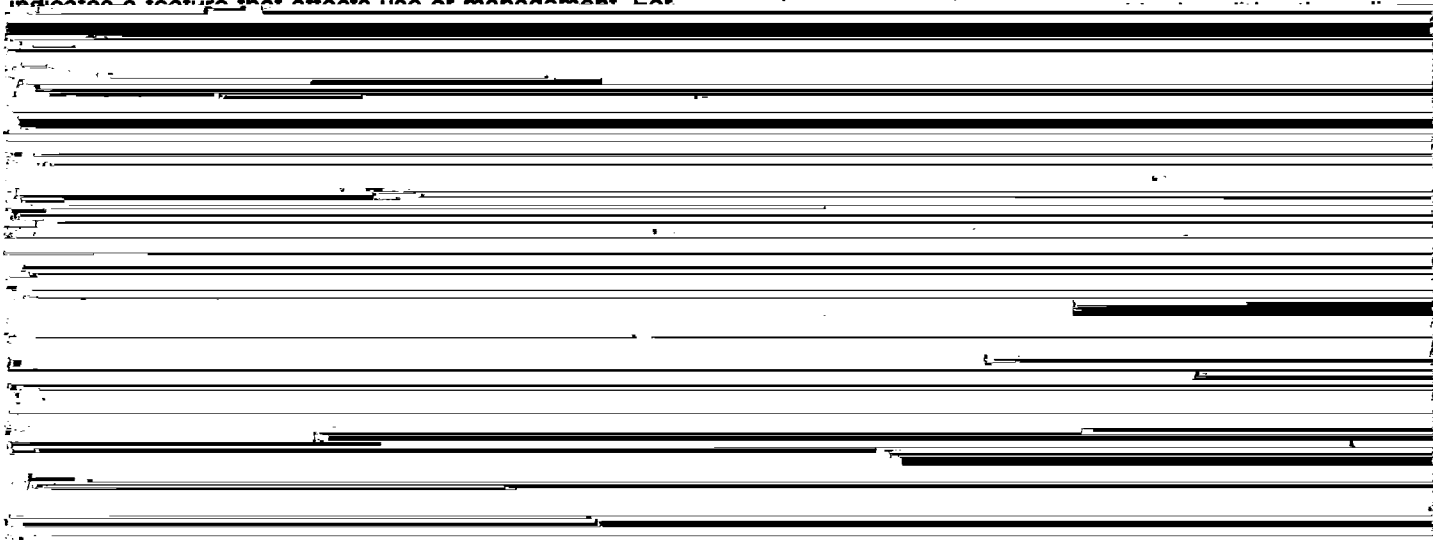
frequently flooded, is an undifferentiated group in this survey area.

Most map units include small scattered areas of soils other than those for which the map unit is named. Some of these included soils have properties that differ substantially from those of the major soil or soils. Such differences could significantly affect use and management of the soils in the map unit. The included soils are identified in each map unit description.

This survey includes *miscellaneous areas*. Such areas have little or no soil material and support little or no vegetation. Pits is an example. Miscellaneous areas are shown on the soil maps.

All the soils in St. Tammany Parish were mapped at the same level of detail except for those areas within the marshes and swamps and those areas on the narrow flood plains of major streams. Poor accessibility limited the number of observations in most of these areas. In addition, wetness from flooding or ponding limits the use and management of these soils, and separating all of the soils in these areas would be of little importance to the land user. Where flooding or ponding is the overriding limitation for expected land use, fewer onsite observations were made and the soils were not mapped separately.

Table 5 gives the acreage and proportionate extent of each map unit. Other tables (see "Summary of Tables") give properties of the soils and the limitations, capabilities, and potentials for many uses. The Glossary



available to plants in most years. The shrink-swell

of urban land. The included soils make up about 10 percent of the map unit.

This Abita soil is mostly used as woodland. Small acreages are used as commercial and residential sites, pastureland, or cropland.

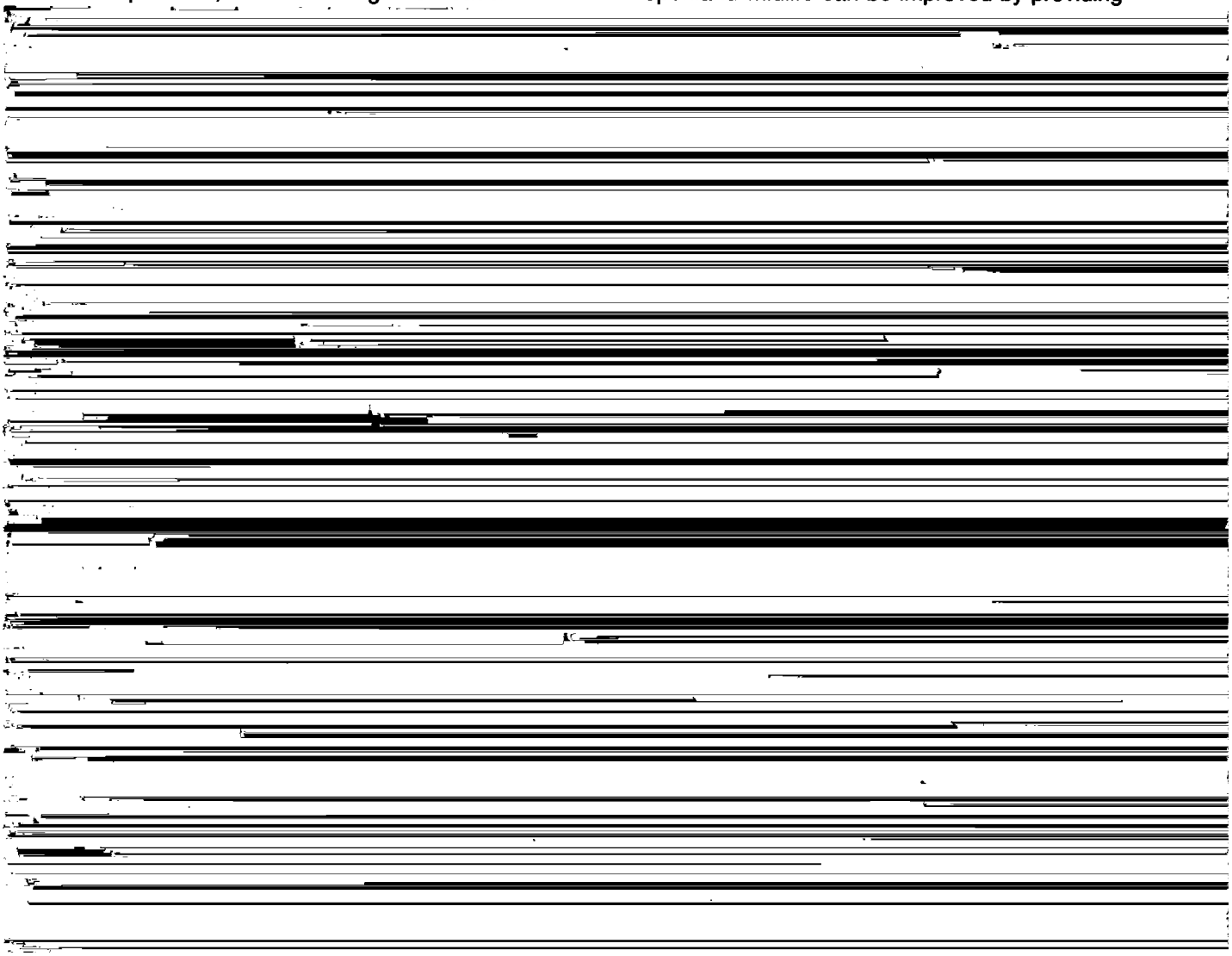
This soil is well suited to use as woodland. Loblolly pine, slash pine, and longleaf pine are suitable trees to plant. The main concern in producing and harvesting timber is a moderate equipment use limitation caused by wetness. Erosion is a slight hazard. Soil compaction is also a concern. Harvesting when the soil is dry reduces the risk of soil compaction. After harvesting, reforestation must be carefully managed to reduce competition from undesirable understory plants. Management that minimizes the risk of erosion is important in harvesting timber.

This soil is poorly suited to urban uses. The main limitations are wetness, slow permeability, moderate shrink-swell potential, and low strength for roads.

respond well to additions of lime and fertilizer, which help to overcome the low fertility and high levels of exchangeable aluminum.

This soil is moderately well suited to intensive recreation uses, such as playgrounds and campsites. The main limitations are wetness, slow permeability, and a moderate hazard of erosion. Good drainage should be provided for intensively used areas, such as playgrounds. Adequate plant cover can control erosion and sedimentation and enhance the beauty of the area. Plant cover can be maintained by controlling traffic.

This soil is well suited to use as habitat for openland and woodland wildlife. Habitat for woodland wildlife can be improved by planting or encouraging the growth of existing oak trees. Prescribed burning, rotated every 3 years among several small tracts of land, can increase the amount of palatable deer browse and seed-producing plants used by quail and turkey. Habitat for openland wildlife can be improved by providing



to prevent contamination of water sources by effluent seepage. Drainage ditches and levees are difficult to construct and maintain because of the very fluid nature of the underlying mineral material and the subsidence of the organic material.

This soil has good potential for use as habitat for wetland wildlife and fair potential for openland and woodland wildlife. Habitat for wildlife can be improved by planting appropriate vegetation or by encouraging the propagation of desirable plants. Habitat for wetland wildlife can be improved by constructing shallow ponds to provide open water areas for waterfowl and furbearers, such as muskrat, nutria, and otter.

This Allemands soil is in capability subclass IVw. It is not assigned a woodland ordination symbol.

Ag—Aquents, dredged. This map unit consists of areas of spoil material dredged from nearby marshes, swamps, and waterways. The soils are nearly level to gently sloping and are poorly drained. Slopes range from 0 to 5 percent.

adequate for the expected use of the soil. Areas are irregular in shape and range up to several thousand acres. Slope is less than 1 percent.

Typically, this Arat soil has a dark grayish brown, very fluid, silty clay loam surface layer about 10 inches thick. The underlying material to a depth of about 70 inches is grayish brown and very dark grayish brown, very fluid, silty clay loam. Logs and wood fragments are in the lower part.

This Arat soil has slow permeability. The high water table ranges from 0.5 foot below the soil surface to 3 feet above the surface when the soil is not flooded; however, this soil is frequently flooded by freshwater for very long periods. Depth of floodwaters ranges from 3 to 7 feet. This soil has low strength or capacity to support a load. Permeability is slow. The total subsidence potential is medium.

Included in mapping are a few large areas of Allemands, Barbary, Larose, Maurepas, and Rosebloom soils. The Allemands soils are in nearby marshes and are organic soils. The Barbary soils are in positions on

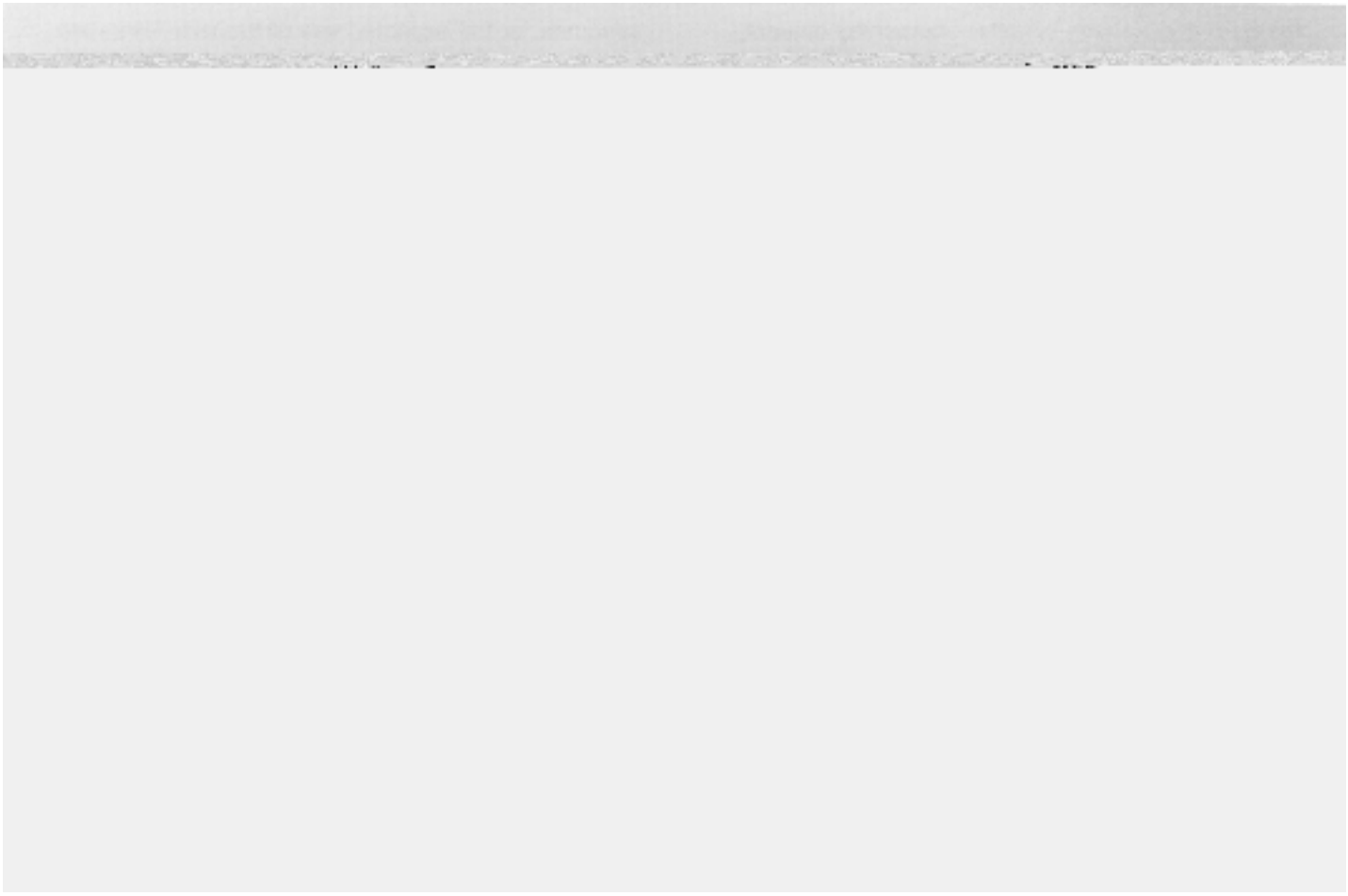


Figure 2.—Although Aquents, dredged, have severe limitations for urban uses, most of this soil is used for residential and commercial development.

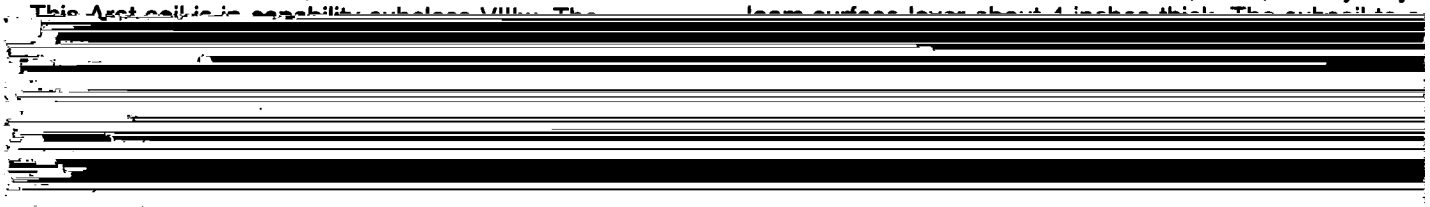
This Arat soil is not suited to crops or pasture. Wetness, flooding, and low strength are too severe. This soil generally is too soft and boggy to support livestock grazing.

This soil is not suited to urban uses or intensive recreation uses, such as playgrounds and campsites, because wetness, flooding, and low strength are too severe. Drainage and protection from flooding are possible only by constructing large water control structures. Drainage ditches are difficult to construct because stumps and logs are buried in the soil. In addition, subsidence is a problem if this soil is drained.

This Arat soil is in capability subclass VIIw. The

a mapped area, but only one soil is in a few of the areas. In areas of both soils, the Arkabutla soil is on slightly higher convex ridges, and the Rosebloom soil is in lower positions. The texture of the surface layer changes as floodwaters rework the deposits. In mapping, the number of observations was fewer than in most other areas. The detail, however, is adequate for expected uses of the soil. The areas range from 100 to several thousand acres and consist of about 50 percent Arkabutla soil and 40 percent Rosebloom soil. Slope is less than 2 percent.

Typically, this Arkabutla soil is somewhat poorly drained. It has a dark brown silt loam, loam, or silty clay loam surface layer about 4 inches thick. The subsoil to



moderate rate, and water runs off the surface slowly. This soil is subject to brief to very long periods of flooding, mainly in the winter and spring; however, flooding can occur any time during the year and more often than twice in 5 years. A seasonal high water table fluctuates between depths of about 1 foot and 1.5 feet from January to April. This soil has moderate shrink-swell potential in the subsoil.

Typically, the Rosebloom soil is poorly drained. It has a brown silt loam or silty clay loam surface layer about 5 inches thick. The subsoil to a depth of about 65 inches is gray silt loam in the upper part and light brownish gray silty clay loam in the lower part.

The Rosebloom soil has medium fertility and moderately high levels of exchangeable aluminum that are potentially toxic to some crops. Water and air move through this soil at a slow rate, and water runs off the surface slowly. A seasonal high water table is within 1 foot of the surface from January to March. This soil is subject to brief to very long periods of flooding, mainly in the winter and spring; however, flooding can occur anytime during the year and more often than twice in 5 years.

Included in mapping are a few small areas of Arat, Bibb, and Ouachita soils. The Arat soils are in nearby swamps and are very fluid throughout. The Bibb soils are in positions on the landscape similar to those of the

These soils have good potential for use as habitat for woodland and wetland wildlife. The soils provide habitat for deer, squirrels, rabbits, turkey, and numerous furbearing animals. Habitat for wildlife can be improved by planting appropriate vegetation, by maintaining the existing plant cover, or by encouraging the propagation of desirable plants.

These soils are not suited to cultivated crops, urban uses, or intensively used recreation areas, such as playgrounds and campsites. The hazard of flooding is generally too severe for these uses.

The soils in this map unit are in capability subclass Vw. The woodland ordination symbol for Arkabutla soil is 12W, and for Rosebloom soil it is 9W.

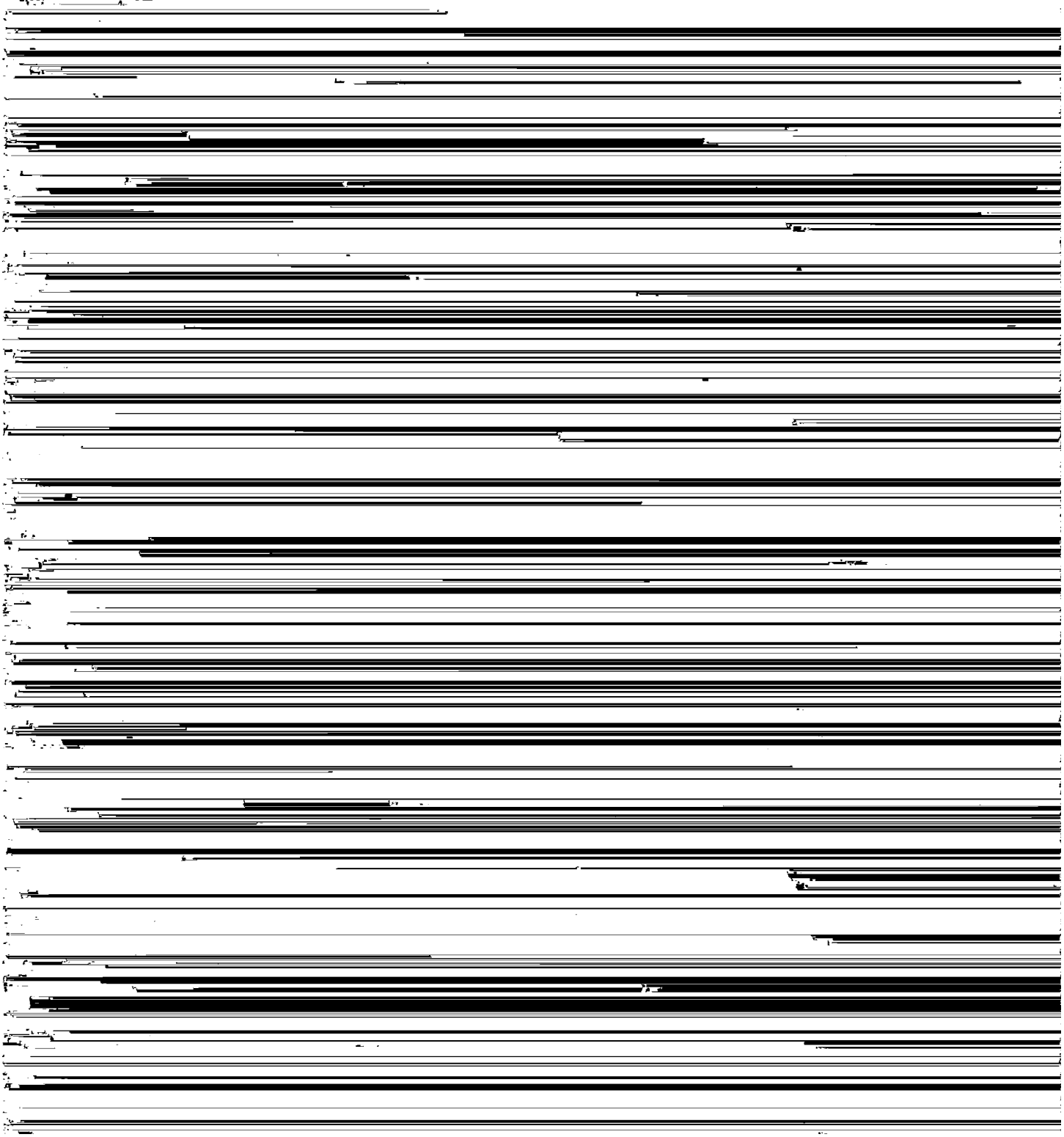
BB—Barbary mucky clay. This soil is level, very poorly drained, and very fluid. It is a mineral soil that is in swamps. In mapping, the number of observations was fewer than in most other areas because of poor accessibility. The detail, however, is adequate for the expected use of the soil. Areas are irregular in shape and are several hundred acres. Slope is less than 1 percent.

Typically, this Barbary soil has a very dark grayish brown, very fluid mucky clay surface layer about 4 inches thick. The subsurface layer to a depth of about 14 inches is very dark gray, very fluid clay. The underlying

difficult to construct because of the instability and very fluid nature of the soil material.

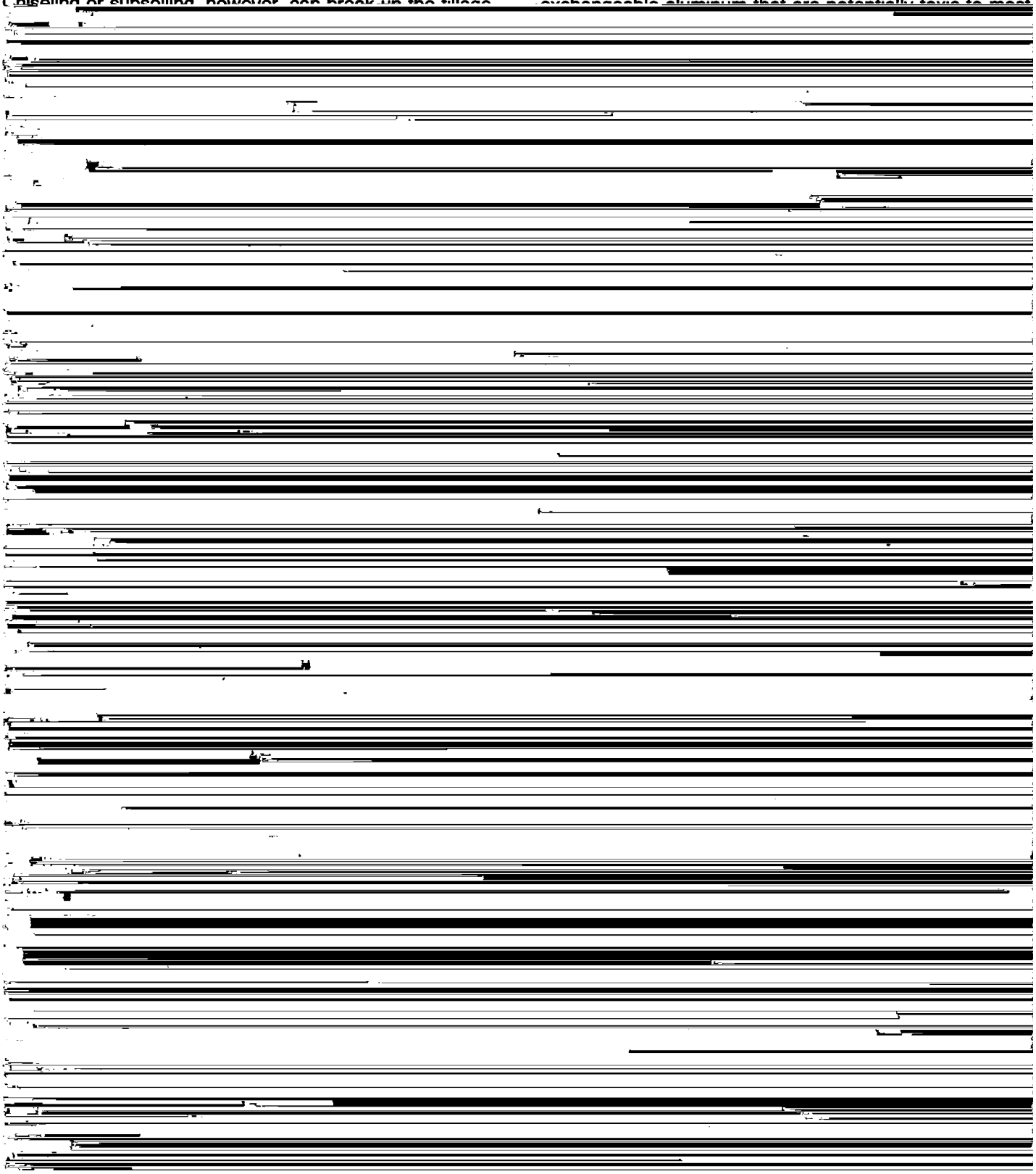
This soil is poorly suited to use as woodland, mainly because of wetness, flooding, and poor trafficability. Few

subsurface layer to a depth of 28 inches is grayish brown, mottled silt loam in the upper part and light brownish gray, mottled silt loam in the lower part. The subsoil to a depth of about 66 inches is light brownish



pan forms easily if these soils are tilled when wet. Chiseling or subsoiling, however, can break up the tillage

This soil has low fertility and moderately high levels of exchangeable aluminum that are potentially toxic to most



sewage systems are needed to prevent contamination of water supplies as a result of seepage.

This soil is well suited to recreation uses and it has few limitations to this use. Erosion and sedimentation can be controlled and the beauty of the area enhanced by maintaining adequate plant cover. Plant cover can be maintained by controlling traffic.

This soil is well suited to use as habitat for openland and woodland wildlife. Habitat for wildlife can be improved by planting appropriate vegetation or by encouraging the propagation of desirable plants.

This Cahaba soil is in capability subclass IIe. The woodland ordination symbol is 9A.

CV—Clovelly muck. This soil is level, very poorly drained, very fluid, and slightly saline. This is an organic soil that is in brackish marshes. In mapping, the number of observations was fewer than in most other areas. The detail, however, is adequate for the expected uses of the

This soil is well suited to use as habitat for wetland wildlife. Food and roosting areas are available for ducks, geese, and other waterfowl. The soil also provides habitat for the American alligator and for furbearers, such as mink, otter, muskrat, and nutria. The natural vegetation consists mainly of marshhay cordgrass, dwarf spikerush, and Olney bulrush. Intensive management of wildlife habitat generally is not practical. Water control structures are difficult to construct and maintain because of the instability and very fluid nature of the soil material. Saltwater intrusion is a problem in managing vegetation for wildlife habitat. The small ponds and streams included in this map unit provide areas for sport and commercial fishing.

This soil is not suited to crops or pasture or to use as woodland because of wetness, flooding, salinity, low strength, and poor accessibility. These soils generally are too soft and boggy to support livestock.

This soil is not suited to urban use or intensive

rainstorms. Flooding can occur anytime of the year, but less often than once in 10 years.

Included in mapping are a few small areas of Abita, Brimstone, Myatt, and Stough soils. The Abita and Stough soils are in slightly higher positions on the landscape than the Guyton soil and have a subsoil that is browner in the upper part. The Brimstone soils are in positions similar to those of the Guyton soil and have high concentrations of sodium in the subsoil. The Myatt soils are in similar positions and they have more sand throughout. Also included are a few large areas of urban land and adjacent to Lake Pontchartrain, a few areas of Guyton soils that are subject to rare flooding by tides during storms. The included soils make up about 15 percent of the map unit.

This Guyton soil is mainly used as woodland or pastureland. In a few areas, it is used as commercial or residential sites and for growing vegetables.

The soil is well suited to the production of pine and hardwood trees. Suitable trees to plant are loblolly pine and sweetgum. The main concerns in producing and harvesting timber are moderate seedling mortality and severe equipment use limitations caused by wetness. Standard-wheeled and tracked equipment cause rutting and compaction when the soil is moist. Puddling can occur when the soil is wet. After harvesting, reforestation must be carefully managed to reduce competition from undesirable understory plants.

This soil is well suited to pasture. The main limitations are wetness and low fertility. Suitable pasture plants are common bermudagrass, bahiagrass, tall fescue, ryegrass, white clover, and winterpeas. Wetness limits the period of grazing. Proper stocking, pasture rotation, and restricted grazing during wet periods help keep the pasture and the soil in good condition. Fertilizer and lime are needed for optimum growth of grasses and legumes.

This soil is moderately well suited to cultivated crops. It is limited mainly by wetness, low fertility, and potentially toxic levels of exchangeable aluminum within the root zone. Suitable crops are vegetables, rice, soybeans, and grain sorghum. A drainage system is needed for most cultivated crops and pasture plants. Returning crop residue to the soil or regularly adding other organic matter improves fertility, reduces crusting, and increases the water intake rate. Crops respond well to lime and fertilizer, which help to overcome the low

absorption fields do not function properly during rainy periods because of wetness and slow permeability.

This soil is well suited to use as habitat for wetland wildlife and moderately well suited to openland and woodland wildlife. Habitat for wetland wildlife can be improved by constructing shallow ponds and by encouraging the growth of appropriate wetland plants. Habitat for woodland wildlife can be improved by encouraging the growth of oak trees and by practicing prescribed burning to encourage the regrowth of young, palatable vegetation.

This Guyton soil is in capability subclass IIIw. The woodland ordination symbol is 9W.

Gy—Guyton silt loam, occasionally flooded. This soil is level and poorly drained. It is on broad stream terraces and in narrow drainageways. Areas range from about 5 to 100 acres. Slope is less than 1 percent.

Typically, this Guyton soil has a dark grayish brown silt loam surface layer about 4 inches thick. The subsurface layer to a depth of about 27 inches is light brownish gray, mottled silt loam. The subsoil to a depth of about 58 inches is light brownish gray, mottled silt loam and clay loam. The underlying layer to a depth of about 64 inches is gray clay loam.

This soil has low fertility and high levels of exchangeable aluminum that are potentially toxic to most crops. Water and air move through this soil at a slow rate, and water runs off the surface slowly. The seasonal high water table ranges from the surface to a depth of about 1.5 feet from December to May. This soil is subject to flooding for very brief to long periods during any time of the year; however, flooding occurs less often than twice in 5 years. Areas along Lake Pontchartrain are subject to tidal flooding during storms.

Included in mapping are a few small areas of Abita, Brimstone, Ouachita, Myatt, and Stough soils. The Abita and Stough soils are in slightly higher positions on stream terraces than the Guyton soil and have a subsoil that is browner in the upper part. The Brimstone soils are in positions similar to those of the Guyton soil and have high levels of sodium in the subsoil. The Ouachita soils are in slightly higher positions in drainageways and are browner throughout. The Myatt soils are in similar positions and have more sand throughout. The included soils make up about 15 percent of the map unit.

This soil is moderately well suited to pasture. The main limitations are wetness and low fertility, and flooding is a hazard. Suitable pasture plants are common bermudagrass, bahiagrass, ryegrass, and vetch. Wetness limits the choice of plants and the period of grazing. Proper stocking, pasture rotation, and restricted grazing during wet periods help keep the pasture and the soil in good condition. Fertilizer and lime are needed for optimum growth of grasses and legumes.

This soil is poorly suited to cultivated crops mainly because of wetness, flooding, low fertility, and potentially toxic levels of exchangeable aluminum within the root zone. Suitable crops are vegetables, rice, soybeans, and

runs off the surface slowly. Under normal conditions, the high water table is maintained at a depth of about 1 foot to 3 feet. After heavy rains, the water table is near the surface for short periods. This soil has been drained by pumps and is protected from flooding by levees. Flooding is rare, but it can occur during severe storms and hurricanes, or when water pumps or protection levees fail. Flooding can occur anytime of the year, but less often than once in 10 years. Adequate water is available to plants in most years. This soil has very high shrink-swell potential and a medium total subsidence potential.

KE—Kenner muck. This soil is level, very poorly drained, and very fluid. It is an organic soil that is in freshwater marshes. In mapping, the number of observations was fewer than in most other areas. The detail, however, is adequate for the expected use of the soil. Areas range from about 50 to 1,000 acres. Slope is less than 1 percent.

Typically, this Kenner soil has a very dark grayish brown, very fluid muck surface layer about 14 inches thick. The next layer to a depth of about 16 inches is dark gray, very fluid clay. Below that layer to a depth of about 45 inches is a layer of black, very fluid muck underlain by a layer of gray, very fluid clay about 1 inch thick. The underlying material to a depth of about 75

problem in managing the vegetation for wetland wildlife. Water control structures are difficult to construct and maintain because of the instability of the organic materials.

This soil is not suited to crops, to use as woodland, or to pasture. Wetness, flooding, and low strength are too severe. This soil is too soft and boggy to support livestock grazing.

This soil is not suited to urban uses or intensive recreation uses, such as playgrounds and campsites. Flooding, wetness, low strength, and subsidence potential are too severe. If this soil is drained and protected from flooding, it will subside 5 feet or more

This Lafitte soil is mainly used as habitat for wetland wildlife and for extensive forms of recreation, such as hunting and fishing.

This soil is well suited to use as habitat for wetland wildlife. Food and roosting areas are available for ducks, geese, and other waterfowl. The soil also provides habitat for American alligator and furbearers, such as mink, otter, raccoon, muskrat, and nutria. The natural vegetation consists mainly of marshhay cordgrass, saltmarsh morningglory, Olney bulrush, and smooth cordgrass. Intensive management of wildlife habitat generally is not practical. Water control structures are difficult to construct and maintain because of the instability and very fluid nature of the soil. Saltwater intrusion is a problem in managing the vegetation for wildlife habitat. The small ponds and streams within this map unit provide areas for sport and commercial fishing.

This soil is not suited to crops, pasture, or woodland because of wetness, flooding, salinity, low strength, and poor accessibility. These soils are generally too soft and boggy to support livestock.

This soil is not suited to urban uses or intensive recreation uses, such as playgrounds and campsites, because of flooding, wetness, low strength, and subsidence. If this soil is drained and protected from flooding, it will subside 5 feet or more below sea level.

This Lafitte soil is in capability subclass VIIIw. It is not assigned a woodland ordination symbol.

LR—Larose muck. This soil is level, very poorly drained, and very fluid. It is a mineral soil that is in freshwater marshes. In mapping, the number of observations was fewer than in most other areas. The detail, however, is adequate for the expected use of the soil. Areas are large and range to several thousand acres. Slope is less than 1 percent.

Typically, this Larose soil has a very dark grayish brown, very fluid muck surface layer about 2 inches

Also included are a few large areas of soils similar to the Larose soil except they have thin organic or loamy layers within the underlying material. Few to many small ponds and tidal channels are included in places. The included soils make up about 20 percent of the map unit.

This Larose soil is mainly used as habitat for wetland wildlife and for extensive forms of recreation, such as hunting and fishing.

This soil is well suited to use as habitat for wetland wildlife. It provides habitat for large numbers of ducks and other waterfowl. It also provides habitat for crawfish, alligators, swamp rabbits, deer, feral hogs, nutria, mink, otter, muskrat, and raccoon. The natural vegetation is mainly alligatorweed, cattail, common rush, bulltongue, maidencane, pickerelweed, and giant cutgrass. The small ponds and tidal channels produce many species of freshwater fish. Sport fishing and duck hunting are popular. Intensive habitat management is difficult. Water control structures are difficult to construct because of the instability and very fluid nature of the soil.

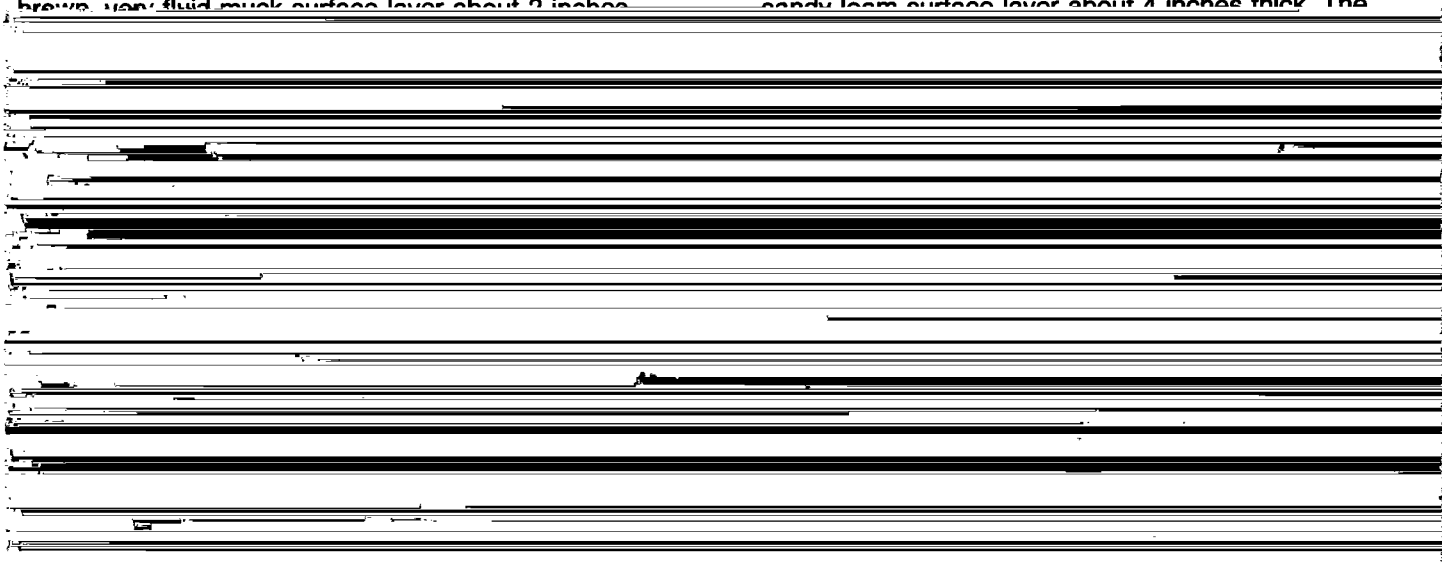
This soil is not suited to crops, trees, or pasture because of flooding and wetness. This soil is generally too soft and boggy to support livestock grazing.

This soil is not suited to urban uses or intensive recreation uses, such as playgrounds and campsites, because of flooding, wetness, subsidence, and low strength. This soil is poorly suited to use in constructing levees. Upon drying, it shrinks and cracks considerably, and levees commonly fail.

This Larose soil is in capability subclass VIIw. It is not assigned a woodland ordination symbol.

Lt—Latonia fine sandy loam. This soil is nearly level and well drained. It is on stream terraces along major drainageways. Areas range from about 5 to 150 acres. Slope is less than 2 percent.

Typically, the Latonia soil has a grayish brown fine sandy loam surface layer about 4 inches thick. The



of Latonia soils that are subject to rare flooding. The included soils make up about 10 percent of the map unit.

This Latonia soil is mainly used as woodland. Small acreages are in pasture or used as commercial or residential sites.

This soil is well suited to use as woodland. It has few limitations to this use; however, it has moderate susceptibility to compaction. The risk of soil compaction can be reduced by limiting site preparation and harvesting activities to periods when the soil is dry.

MA—Maurepas muck. This soil is level, very poorly drained, and very fluid. It is an organic soil that is in swamps. In mapping, the number of observations was fewer than in most other areas. The detail, however, is adequate for the expected use of the soil. Areas range from about 50 to 1,000 acres. Slope is less than 1 percent.

Typically, this Maurepas soil has a dark brown, very fluid muck surface layer about 10 inches thick. The surface layer is underlain by layers of black and very dark gray, very fluid muck to a depth of about 75 inches.

This soil is not suited to urban uses or intensive recreation uses, such as playgrounds and campsites.

subsides. In most places, buried logs and stumps cause uneven subsidence. If dry, the organic matter is subject

This soil is well suited to use as woodland. The main concerns in producing and harvesting timber are severe seedling mortality and equipment use limitations caused by wetness. After harvesting, reforestation must be carefully managed to reduce competition from undesirable understory plants. Using equipment when the soil is moist causes rutting and compaction. Suitable trees to plant are loblolly pine, slash pine, and sweetgum.

This soil is poorly suited to urban uses, mainly because of flooding, wetness, and moderately slow permeability. Levees can provide protection from flooding. Filling low areas prior to construction also helps prevent flooding. Excess water can be removed by using shallow ditches and providing the proper grade for drainage. Septic tank absorption fields do not function properly during rainy periods because of wetness and moderately slow permeability.

This soil is moderately well suited to cultivated crops. The main limitations are wetness and low fertility. Suitable crops are soybeans, corn, grain sorghum, vegetables, and rice. Proper row arrangement, field ditches, and vegetated outlets are needed to remove excess surface water. Crop residue left on or near the surface helps to maintain soil tilth and organic matter content. Most crops respond well to lime and fertilizer, which help to overcome the low fertility and high levels of exchangeable aluminum.

This soil is poorly suited to intensive recreation areas

areas on stream terraces and in narrow drainageways. Areas range from about 5 to 500 acres. Slope is less than 1 percent.

Typically, this Myatt soil has a dark gray fine sandy loam surface layer about 6 inches thick. The subsurface layer is gray, mottled loam to a depth of about 14 inches. The subsoil extends to a depth of about 58 inches. It is gray mottled loam in the upper and middle parts and mottled gray, light yellowish brown, and strong brown sandy clay loam in the lower part. The underlying material to a depth of about 68 inches is gray sandy clay loam.

This soil has low fertility and high levels of exchangeable aluminum that are potentially toxic to most crops. Water and air move through this soil at a moderately slow rate, and water runs off the surface very slowly. A seasonal high water table fluctuates between the surface and a depth of about 1 foot from November to April. This soil is subject to brief periods of flooding, mainly in the winter and spring, but flooding can occur anytime during the year and more often than twice in 5 years.

Included in mapping are a few small areas of Brimstone, Guyton, Latonia, Prentiss, and Stough soils. The Brimstone and Guyton soils are in positions on the landscape similar to those of the Myatt soil and have less sand in the subsoil. In addition, the Brimstone soils have high concentrations of sodium in the subsoil. The

restricted grazing during wet periods help keep the pasture and the soil in good condition.

This soil is not suited to urban uses or intensive recreation uses, such as playgrounds and campsites. Flooding and wetness are generally too severe. Protection from flooding is needed before areas of this soil can be used for building sites and sanitary facilities. Dikes and channels that have outlets to bypass

inches is gray loam in the upper part and light gray, mottled sandy loam in the lower part.

This soil has low fertility and high levels of exchangeable aluminum that are potentially toxic to most crops. Water and air move through this soil at a moderate rate, and water runs off the surface very slowly. This soil is subject to brief periods of flooding mainly in the winter and spring, but flooding can occur

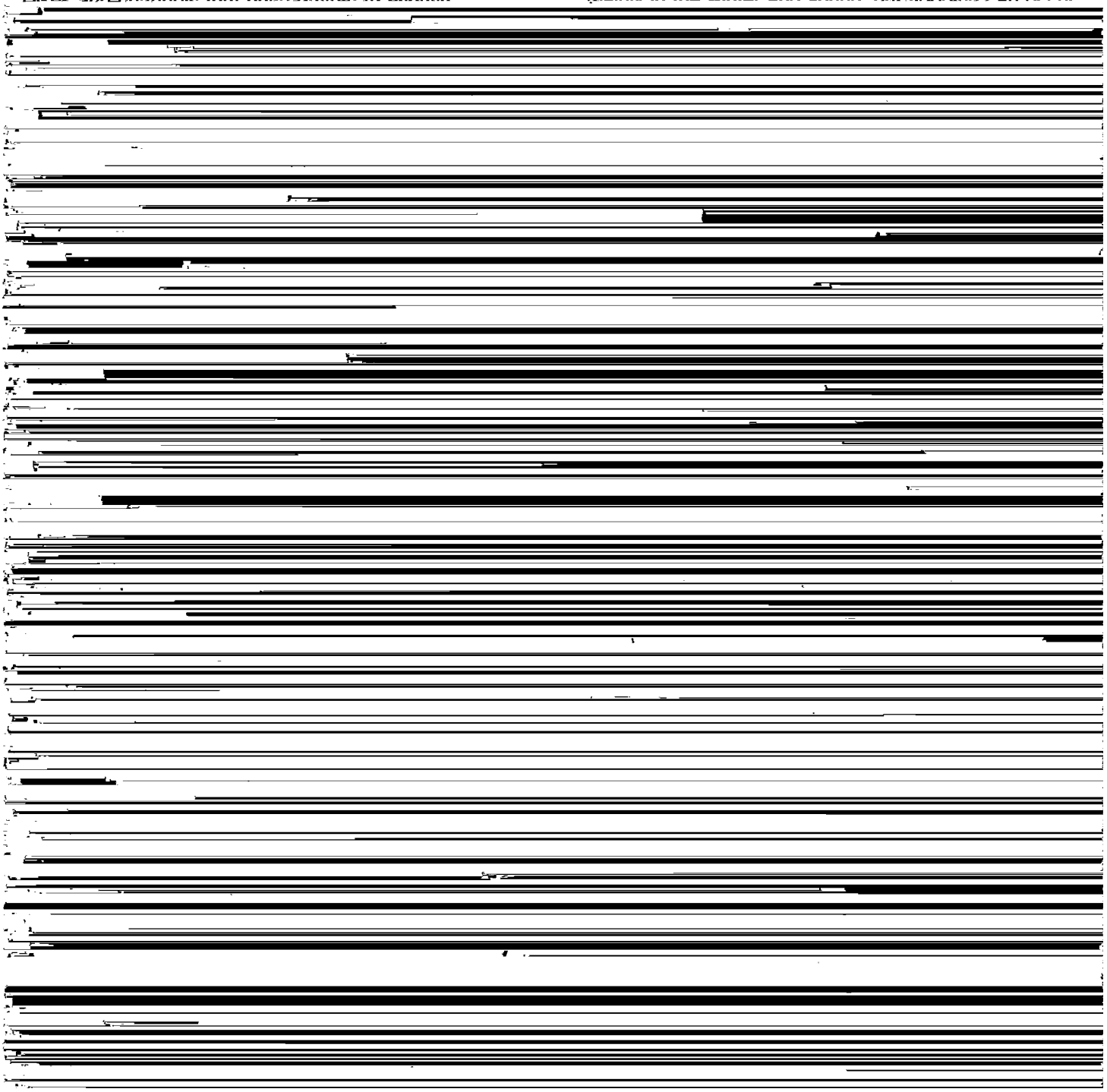


Figure 3.—This pavilion is in a park in an area of Ouachita and Bibb soils, frequently flooded. Such recreation areas generally can be used only during drier seasons unless the soils are protected from flooding.

The soils in this map unit are not suited to urban uses and intensive recreation uses, such as playgrounds and campsites. The hazard of flooding is generally too severe (fig. 3). Protection from flooding is possible only by constructing large flood control structures, such as levees.

These Ouachita and Bibb soils are in capability subclass Vw. The woodland ordination symbol is 9W for both soils.

Pg—Pits. This map unit consists of gravel pits, sand pits, and borrow pits. Areas range from 5 to 100 acres.

Gravel pits are open excavations from which gravel has been mined. The largest of these are on the terraces and flood plains of major drainageways. Sand pits are areas from which mostly sand has been has been removed for use in constructing roads and developing commercial and residential areas.

Pits require major reclamation before they can be used for crops or pasture. Pine trees can be planted to protect the soil against erosion, but they grow slowly because of low fertility and low available water capacity. Young pines and shrubs partly cover a few small areas.

Pr—Prentiss fine sandy loam, 0 to 1 percent slopes. This soil is level, moderately well drained, and has a fragipan. It is on ridges on stream terraces. Areas range from about 5 to 200 acres.

Typically, this Prentiss soil has a dark gray fine sandy loam surface layer about 5 inches thick. The subsoil to a depth of about 25 inches is yellowish brown, mottled sandy loam and loam. The next layer to a depth of 62

This soil has low fertility and high levels of exchangeable aluminum that are potentially toxic to most crops. Water and air move through the upper part of this soil at a moderate rate and through the lower part at a moderately slow rate. Water runs off the surface at a medium rate. The soil has a seasonal high water table that is perched above the fragipan at a depth of 2 to 2.5 feet from January to March.

Included in mapping are a few small areas of Brimstone, Cahaba, Guyton, Latonia, Myatt, and Stough soils. Unlike the Prentiss soil, these soils do not have a fragipan. The Brimstone, Guyton, Myatt, and Stough soils are in lower positions on the landscape than those of the Prentiss soil, and the Cahaba soils are in slightly higher positions. The Latonia soils are in positions similar to those of the Prentiss soils. The Brimstone soils have a high content of sodium in the subsoil, and the Guyton and Myatt soils are grayish throughout. Also included are a few large areas of urban land and, along major drainageways, a few small areas of the Prentiss soil that is subject to rare flooding. The included soils make up about 5 percent of the map unit.

This Prentiss soil is mainly used as woodland. Small acreages are used as commercial or residential sites.

This soil is well suited to use as woodland and has few limitations to this use. Suitable trees to plant are loblolly pine and slash pine. The risk of soil compaction is reduced if trees are planted and harvested when the soil is dry. Conventional methods of harvesting timber can be used except sometimes during rainy periods, generally from January to March.

This soil is well suited to pasture. The main limitations are wetness and low fertility. Grazing when the soil is wet results in compaction of the surface layer, poor tilth, and excessive runoff. Suitable pasture plants are common bermudagrass, improved bermudagrass, bahiagrass, ball clover, crimson clover, wheat, oats, and ryegrass. Proper stocking, pasture rotation, and restricted grazing during wet periods help keep the pasture and the soil in good condition. Fertilizer and lime are needed for optimum forage production.

This soil is moderately well suited to crops. The main limitations are wetness, low fertility, and potentially toxic levels of exchangeable aluminum within the root zone. Suitable crops are soybeans, corn, cotton, grain sorghum, and vegetables. Proper row arrangement, field buildings are constructed. Excess water can be removed by using shallow ditches and providing the proper grade for drainage. Septic tank absorption fields do not function properly during rainy periods because of wetness and moderately slow permeability.

This soil is moderately well suited to intensive recreation uses, such as playgrounds and campsites. The main limitations are wetness and moderately slow permeability. Good drainage should be provided for most recreation uses. Erosion and sedimentation can be controlled and the beauty of the area enhanced by maintaining adequate plant cover.

This soil is well suited to use as habitat for openland and woodland wildlife. Small, vegetated areas left around the borders of fields can provide habitat for rabbits, quail, and nongame birds. Habitat for white-tailed deer and turkey can be improved by encouraging the growth of oaks and other mast-producing trees. Prescribed burning can also encourage the growth of palatable browse for white-tailed deer and seed-producing plants for quail and turkey.

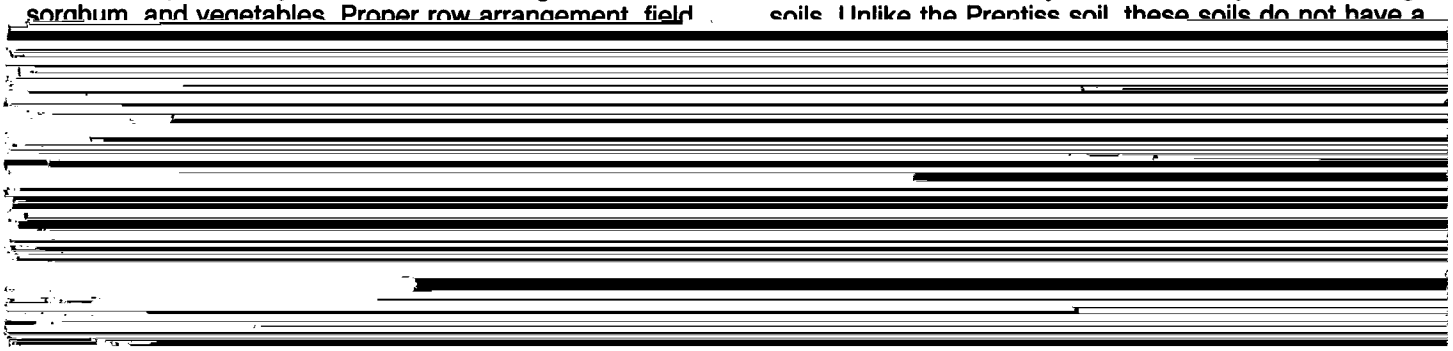
This Prentiss soil is in capability subclass IIw. The woodland ordination symbol is 9A.

Pt—Prentiss fine sandy loam, 1 to 3 percent slopes. This soil is very gently sloping and moderately well drained. It is on ridges on stream terraces. Areas range from about 5 to 200 acres.

Typically, this Prentiss soil has a dark grayish brown fine sandy loam surface layer about 5 inches thick. The subsoil to a depth of about 22 inches is yellowish brown, mottled loam in the upper part and brownish yellow, mottled loam in the lower part. The next layer to a depth of 60 inches is a fragipan. It is brownish yellow and gray, brittle, mottled loam.

This soil has low fertility and high levels of exchangeable aluminum that are potentially toxic to most crops. Water and air move through the upper part of this soil at a moderate rate and through the lower part at a moderately slow rate. Water runs off the surface at a medium rate. The high water table is perched above the fragipan at a depth of 2 to 2.5 feet from January to March.

Included in mapping are a few small areas of Brimstone, Cahaba, Guyton, Latonia, Myatt, and Stough soils. Unlike the Prentiss soil, these soils do not have a



This Prentiss soil is mainly used as woodland. Small acreages are used as commercial or residential sites.

This soil is well suited to use as woodland and has few limitations to this use. Suitable trees to plant are loblolly pine and slash pine. Conventional methods of harvesting timber can be used except sometimes during rainy periods, generally from January to March. Soil compaction can be a problem if equipment is used when the soil is moist or wet.

This soil is well suited to pasture. The main limitations are wetness and low fertility. Grazing when the soil is wet results in compaction of the surface layer, poor tilth, and excessive runoff. Suitable pasture plants are common bermudagrass, improved bermudagrass, bahiagrass, ball clover, crimson clover, wheat, oats, and ryegrass. Proper stocking, pasture rotation, and restricted grazing during wet periods help keep the pasture and the soil in good condition. Fertilizer and lime are needed for optimum forage production.

This soil is well suited to crops. The main limitations are wetness, low fertility, and potentially toxic levels of exchangeable aluminum within the root zone. Suitable crops are soybeans, corn, cotton, grain sorghum, and vegetables. Proper row arrangement, field ditches, and vegetated outlets are needed to remove excess surface water. Conservation tillage and returning all crop residue to the soil or regularly adding other organic matter improve fertility and help to maintain soil tilth and organic matter content. Crops respond well to fertilizer and lime, which help to overcome the low fertility and high levels

Rs—Ruston fine sandy loam, 1 to 3 percent slopes. This soil is very gently sloping and well drained. It is on ridgetops on the terrace uplands. Areas range from about 5 to 150 acres.

Typically, this Ruston soil has a grayish brown fine sandy loam surface layer about 6 inches thick. The subsurface layer to a depth of 11 inches is light yellowish brown fine sandy loam. The subsoil to a depth of about 74 inches is red sandy clay loam in the upper part, yellowish red sandy loam in the middle part, and red sandy clay loam in the lower part.

This soil has low fertility and moderately high levels of exchangeable aluminum that are potentially toxic to some crops. Water and air move through this soil at a moderate rate, and water runs off the surface at a medium rate. Plants are damaged by lack of water during dry periods in the summer and fall of some years.

Included in mapping are a few small areas of Savannah and Smithdale soils. The Savannah soils are in positions on the landscape similar to those of the Ruston soil, and they have a fragipan. The Smithdale soils are on steeper slopes and have a subsoil that becomes less clayey with depth. Also included are a few small areas of soils similar to the Ruston soil except they have a loamy fine sand surface layer. The included soils make up less than 5 percent of the map unit.

This Ruston soil is mainly used as pasture. In a few areas, it is used as homesites or woodland.

This soil is well suited to pasture. The main limitations are slope and low fertility. Where practical, seedbed

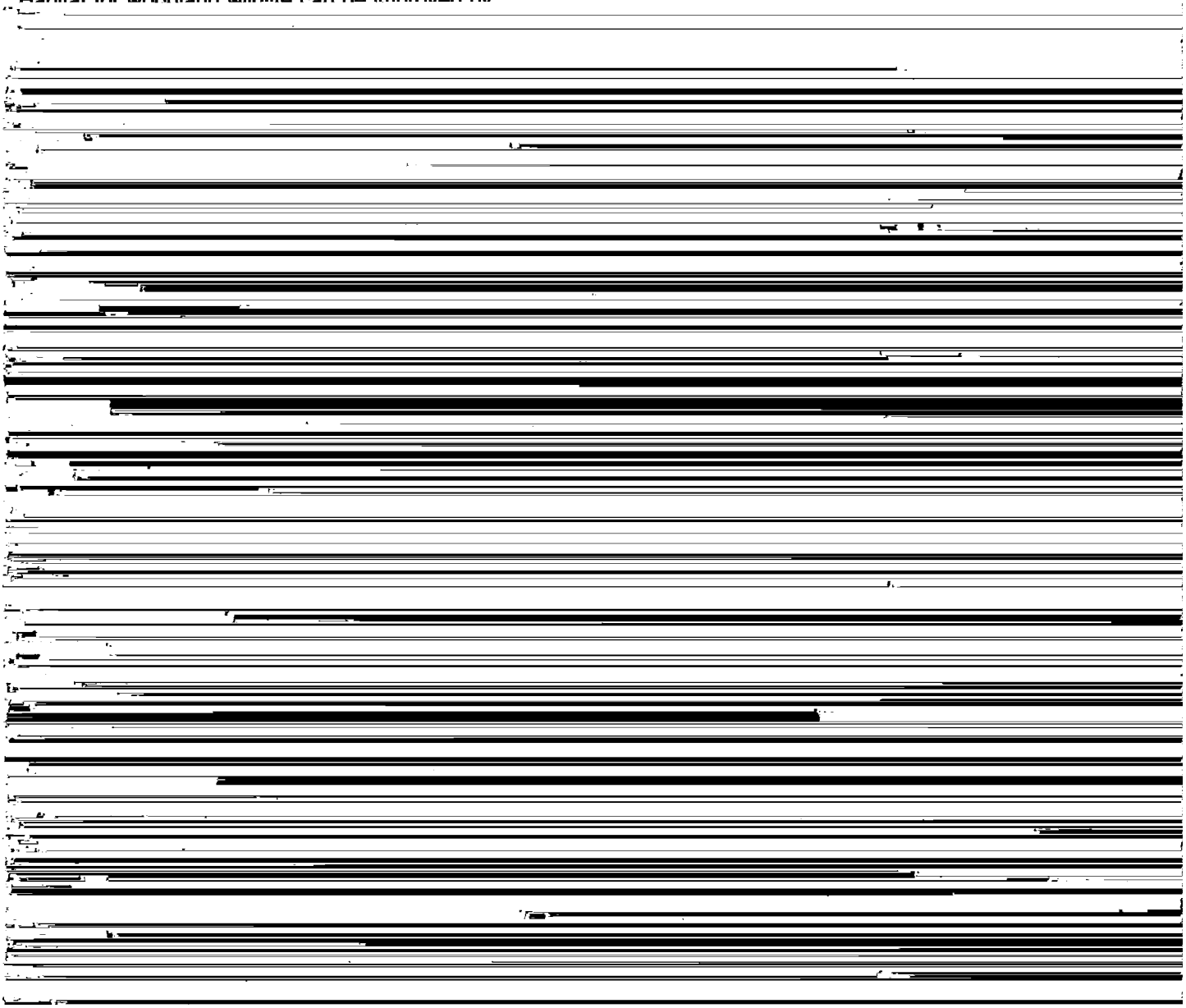
ability of the soil to support a load. The moderate permeability of the subsoil is a limitation to the performance of septic tank absorption fields. This limitation can be overcome by increasing the size of the septic tank absorption field.

This soil is well suited to intensive recreation uses, such as playgrounds and campsites, and has few limitations to these uses. Erosion and sedimentation can be controlled and the beauty of the area enhanced by maintaining adequate plant cover. Plant cover can be maintained by controlling traffic.

This soil is well suited to use as habitat for openland and woodland wildlife. Habitat for openland wildlife can be improved by providing vegetated areas near fields. Habitat for woodland wildlife can be improved by

surface is moist. Suitable trees to plant are loblolly pine, slash pine, and longleaf pine.

This soil is moderately well suited to crops. The main limitations are slope, low fertility, and potentially toxic levels of exchangeable aluminum within the root zone. Suitable crops are corn, soybeans, grain sorghum, and vegetables. This soil is friable and easy to keep in good tilth. It can be worked throughout a wide range of moisture content. This soil dries quickly after rains. Conservation practices, such as proper management of crop residue, stripcropping, contour farming, and terracing, help reduce soil erosion. Most crops respond well to lime and fertilizer, which help to overcome the low fertility and moderately high levels of exchangeable aluminum.



inches is yellowish brown, mottled clay loam. The next layer to a depth of 62 inches is a fragipan. It is mottled brownish and reddish, firm and brittle clay loam.

This soil has low fertility and high levels of

Suitable crops are soybeans, corn, grain sorghum, and vegetables (fig. 4). Practices, such as early fall seeding, minimum tillage, and construction of terraces, diversions, and grassed waterways, can be used to control erosion

cover or revegetating disturbed areas around construction sites as soon as possible helps to control soil erosion. The moderately slow permeability and the high water table increase the possibility that septic tank absorption fields will fail.

This soil is moderately well suited to intensive recreation uses, such as playgrounds and camp areas. The main limitations are wetness and moderately slow permeability. Erosion and sedimentation can be controlled and the beauty of the area enhanced by maintaining adequate plant cover. Plant cover can be maintained by controlling traffic. This soil can be improved for recreation uses by constructing ditches or providing the proper grade for drainage.

This soil is well suited to use as habitat for openland and woodland wildlife. Habitat for openland wildlife can be improved by providing small undisturbed, vegetated areas near fields. Habitat for woodland wildlife can be improved by encouraging the growth of oaks and other mast-producing trees. Prescribed burning, rotated every three years among several small tracts of land, can increase the amount of palatable deer browse and seed-producing plants for quail and turkey.

This Savannah soil is in capability subclass IIe. The woodland ordination symbol is 9A.

Sh—Savannah fine sandy loam, 3 to 6 percent slopes. This soil is gently sloping and moderately well drained. It is on ridgetops and side slopes on the terrace uplands. Areas range from about 5 to 500 acres.

Typically, this Savannah soil has a dark grayish brown fine sandy loam surface layer about 7 inches thick. The subsoil to a depth of about 23 inches is yellowish brown, mottled clay loam. The next layer to a depth of about 60 inches is a fragipan. It is mottled brownish and reddish, firm and brittle sandy clay loam.

This soil has low fertility and high levels of exchangeable aluminum that are potentially toxic to most crops. Water and air move through this soil at a moderately slow rate. Water runs off the surface at a medium rate. This soil dries quickly after rains. A seasonal high water table is perched on the fragipan about 1.5 to 3 feet below the surface from January to March. Plants are damaged by lack of water during dry periods in the summer and fall of some years.

Included in mapping are a few small areas of Guyton and Ruston soils. The Guyton soils are on flatter slopes than the Savannah soil, and the Ruston soils are on more convex slopes. The Guyton soils are grayish throughout. The Guyton and Ruston soils do not have a fragipan. Also included are a few small areas of soils similar to the Savannah soil except they have a loamy fine sand subsurface layer and a subsoil that is reddish in the upper part. Included in places are small areas of Savannah soils that are eroded and have thin surface layers. The included soils make up about 5 percent of the map unit.

This Savannah soil is mainly used as pastureland. In a few areas, it is used as woodland, cropland, or homesites.

This soil is well suited to pasture. The main limitations are slope and low fertility. Suitable pasture plants are bahiagrass, common bermudagrass, improved bermudagrass, ryegrass, wheat, ball clover, and crimson clover. Where possible, seedbed preparation should be on the contour to prevent erosion. Fertilizer and lime are needed for optimum forage production.

This Savannah soil is moderately well suited to crops. The main limitations are low fertility, slope, and potentially toxic levels of exchangeable aluminum within the root zone. Suitable crops are soybeans, corn, grain sorghum, and vegetables. This soil is friable and easy to keep in good tilth. It can be worked throughout a wide range of moisture content. Practices that can control erosion include early fall seeding, conservation tillage, and construction of terraces, diversions, and grassed waterways. Crop residue left on or near the surface helps to conserve moisture, maintain tilth, and control erosion. Crops respond well to additions of lime and fertilizer, which help to overcome the low fertility and high levels of exchangeable aluminum.

This soil is well suited to use as woodland and has few limitations for producing timber. Suitable trees to plant are loblolly pine, slash pine, sweetgum, yellow poplar, and American sycamore. To prevent soil compaction, planting and harvesting should be done when the soil surface is dry.

This soil is moderately well suited to urban uses. The main limitations are moderately slow permeability, wetness, and slope. Septic tank absorption fields do not function properly during rainy periods because of wetness and the moderately slow permeability. A seasonal high water table is perched above the fragipan, and drainage is needed where buildings are constructed. Revegetating disturbed areas around construction sites as soon as possible helps to control erosion.

This soil is moderately well suited to intensive recreation uses, such as playgrounds and campsites. The main limitations are slope, wetness, and moderately slow permeability. Erosion and sedimentation can be controlled and the beauty of the area enhanced by maintaining adequate plant cover. Drainage is needed for playgrounds and camp sites.

This soil is well suited to use as habitat for openland and woodland wildlife. Forested areas provide habitat for white-tailed deer, quail, rabbit, squirrel, turkey, and many nongame birds and animals. Habitat for woodland wildlife can be improved by encouraging the growth of oaks and other mast-producing trees. Habitat for openland wildlife can be created or improved by planting or propagating appropriate vegetation.

This Savannah soil is in capability subclass IIIe. The woodland ordination symbol is 9A.

Sm—Smithdale fine sandy loam, 8 to 12 percent slopes. This soil is strongly sloping. It is on side slopes on the terrace uplands. Areas range from about 5 to 100 acres.

Typically, this Smithdale soil has a very dark gray fine sandy loam surface layer about 4 inches thick. The subsurface layer is yellowish brown sandy loam to a depth of about 10 inches. The subsoil to a depth of about 62 inches is red sandy clay loam in the upper part; red, mottled sandy clay loam in the middle part; and red sandy loam in the lower part.

This soil has low fertility and moderately high levels of

This soil is poorly suited to cultivated crops. The hazard of erosion is severe; therefore, small grains are better suited than row crops. Practices that control erosion include early fall seeding, conservation tillage, and construction of terraces, diversions, and grassed waterways.

This soil is well suited to use as habitat for openland and woodland wildlife. Habitat for openland wildlife can be improved by planting or propagating appropriate vegetation. Habitat for woodland wildlife can be improved by encouraging the growth of oak trees and by providing open areas to increase the growth of

by wetness in the winter and spring. After harvesting, reforestation must be carefully managed to reduce competition from undesirable understory plants.

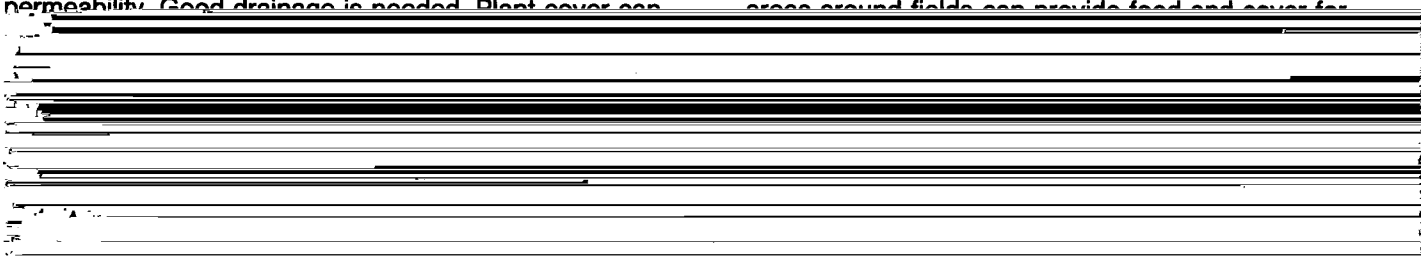
This soil is poorly suited to urban uses. The main limitations are wetness and moderately slow permeability. Excess water can be removed by using shallow ditches and providing the proper grade for drainage. Septic tank absorption fields do not function properly during rainy periods because of wetness and moderately slow permeability.

This soil is moderately well suited to intensive recreation uses, such as playgrounds and campsites. The main limitations are wetness and moderately slow permeability. Good drainage is needed. Plant cover can

includes grasses, legumes, or grass-legume mixtures help to maintain fertility and tilth. Crops respond well to additions of lime and fertilizer, which help to overcome the low fertility and high levels of exchangeable aluminum.

This soil is well suited to pasture. The main limitations are wetness and low fertility. Proper stocking, pasture rotation, and restricted grazing during wet periods help keep the pasture and the soil in good condition. Fertilizer and lime are needed for optimum growth of grasses and legumes.

This soil is well suited to use as habitat for openland and woodland wildlife. Small undisturbed, vegetated areas around fields can provide food and cover for



Prime Farmland

In this section, prime farmland is defined and discussed, and the prime farmland soils in St. Tammany Parish are listed.

Prime farmland is one of several kinds of important farmland defined by the U.S. Department of Agriculture. It is of major importance in meeting the nation's short- and long-range needs for food and fiber. The acreage of high-quality farmland is limited, and the U.S. Department of Agriculture recognizes that government at local, state, and federal levels, as well as individuals, must encourage and facilitate the wise use of our nation's prime farmland.

Prime farmland soils, as defined by the U.S. Department of Agriculture, are soils that are best suited to producing food, feed, forage, fiber, and oilseed crops. Such soils have properties that are favorable for the economic production of sustained high yields of crops. The soils need only to be treated and managed using acceptable farming methods. The moisture supply, of course, must be adequate, and the growing season has to be sufficiently long. Prime farmland soils produce the highest yields with minimal inputs of energy and economic resources. Farming these soils results in the least damage to the environment.

Prime farmland soils may presently be in use as cropland, pasture, or woodland, or they may be in other uses. They either are used for producing food or fiber or are available for these uses. Urban or built-up land, public land, and water areas cannot be considered prime farmland. Urban or built-up land is any contiguous unit of land 10 acres or more in size that is used for such purposes as housing, industrial, and commercial sites,

Prime farmland soils usually get an adequate and dependable supply of moisture from precipitation or irrigation. The temperature and growing season are favorable. The acidity or alkalinity level of the soils is acceptable. The soils have few or no rocks and are permeable to water and air. They are not excessively erodible or saturated with water for long periods and are not subject to frequent flooding during the growing season. The slope ranges mainly from 0 to 6 percent.

The following map units, or soils, make up prime farmland in St. Tammany Parish. The location of each map unit is shown on the detailed soil maps at the back of this publication. The extent of each unit is given in table 5. The soil qualities that affect use and management are described in the section "Detailed Soil Map Units." This list does not constitute a recommendation for a particular land use.

Soils that have limitations, such as a high water table or flooding, may qualify as prime farmland if these limitations are overcome by such measures as drainage or flood control. Onsite evaluation is necessary to determine if the limitations have been overcome by the corrective measures.

Aa	Abita silt loam, 0 to 2 percent slopes
Ab	Abita silt loam, 2 to 5 percent slopes
Ca	Cahaba fine sandy loam, 1 to 3 percent slopes
Gt	Guyton silt loam
Ha	Harahan clay
Lt	Latonia fine sandy loam
Pr	Prentiss fine sandy loam, 0 to 1 percent slopes
Pt	Prentiss fine sandy loam, 1 to 3 percent slopes

Use and Management of the Soils

This soil survey is an inventory and evaluation of the soils in the survey area. It can be used to adjust land uses to the limitations and potentials of natural resources and the environment. Also, it can help avoid soil-related failures in land uses.

In preparing a soil survey, soil scientists, conservationists, engineers, and others collect extensive field data about the nature and behavior characteristics of the soils. They collect data on erosion, droughtiness, flooding, and other factors that affect various soil uses and management. Field experience and collected data on soil properties and performance are used as a basis for predicting soil behavior.

Information in this section can be used to plan the use and management of soils for crops and pasture; as woodland; as sites for buildings, sanitary facilities, highways and other transportation systems, and parks and other recreation facilities; and for wildlife habitat. It can be used to identify the suitability and limitations of each soil for specific land uses and to help prevent construction failures caused by unfavorable soil properties.

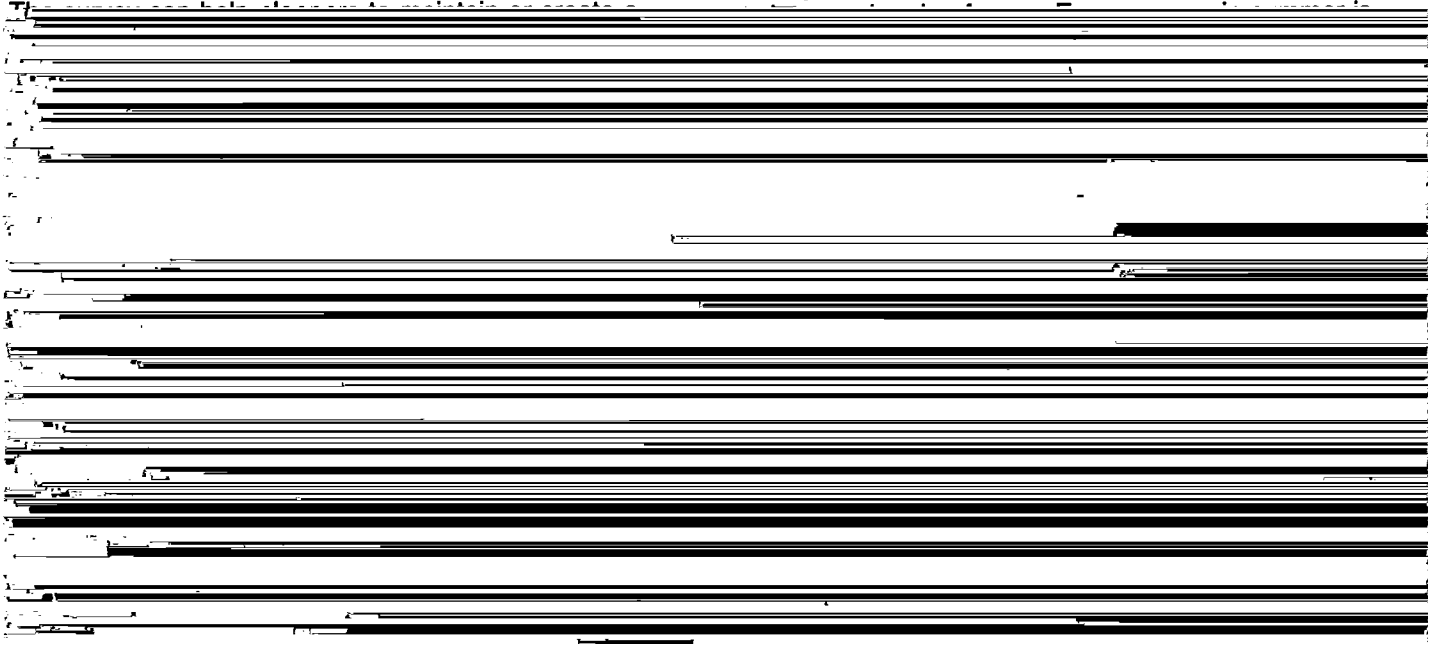
Planners and others using soil survey information can evaluate the effect of specific land uses on productivity and on the environment in all or part of the survey area. [illegible]

yields of the main crops and hay and pasture plants are listed for each soil.

Planners of management systems for individual fields or farms should consider the detailed information given in the description of each soil under "Detailed Soil Map Units." Specific information can be obtained from the local office of the Soil Conservation Service or the Cooperative Extension Service.

Differences in crop suitability and management needs result from differences in soil characteristics, such as fertility level, erodibility, organic matter content, availability of water for plants, drainage, and the hazard of flooding. Cropping systems and soil tillage are also an important part of management. Each farm has a unique soil pattern; therefore, each has unique management problems. Some principles of farm management, however, apply to specific soils and certain crops. This section presents the general principles of management that can be widely applied to the soils of St. Tammany Parish.

Perennial grasses or legumes. Grasses, legumes, or mixtures of these are grown for pasture and hay (fig. 5). The mixtures generally consist of either a summer or a winter perennial grass and a suitable legume. In addition, many farmers seed small grain or ryegrass in the fall for



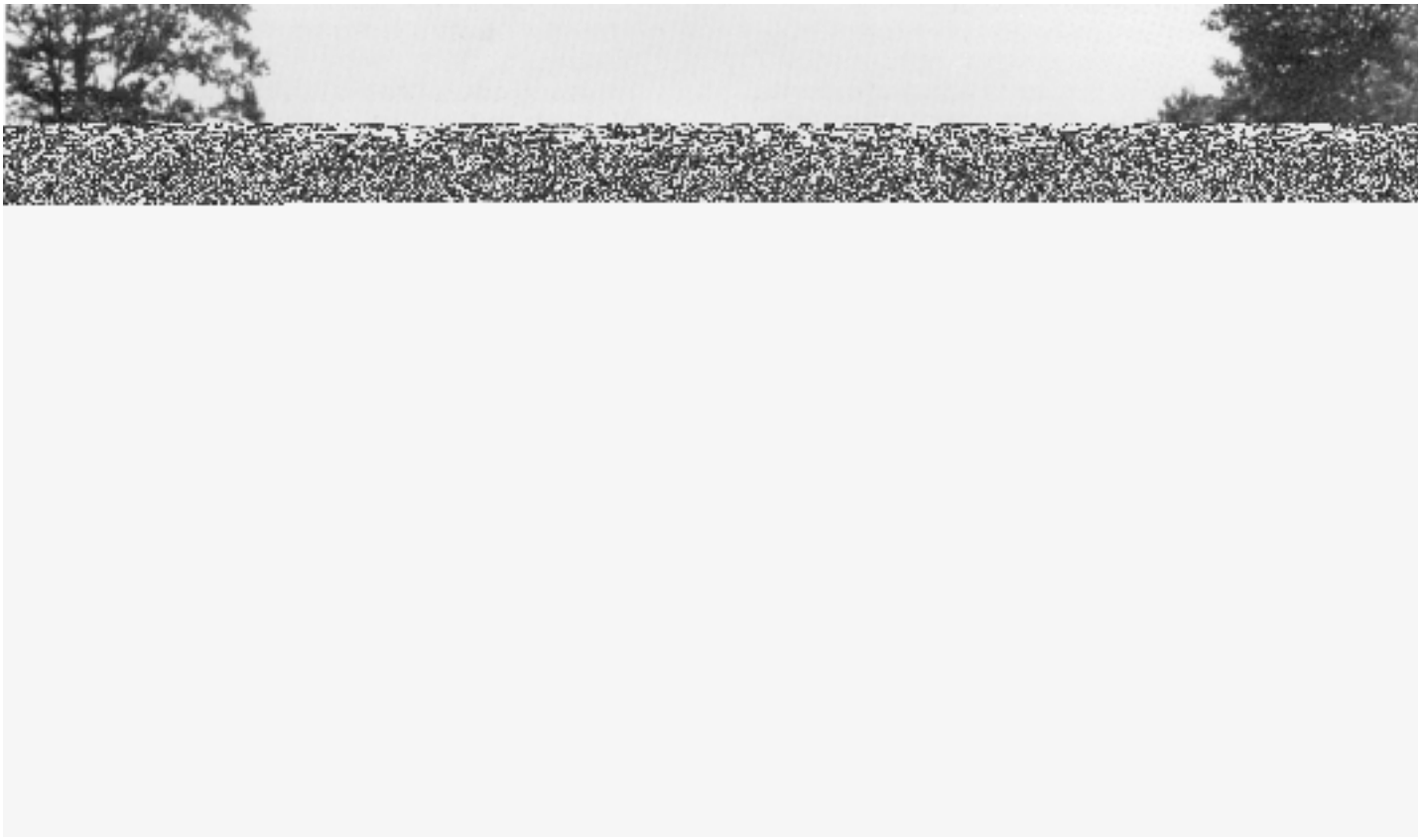


Figure 5.—Savannah fine sandy loam, 3 to 6 percent slopes, is well suited to use as hayland.

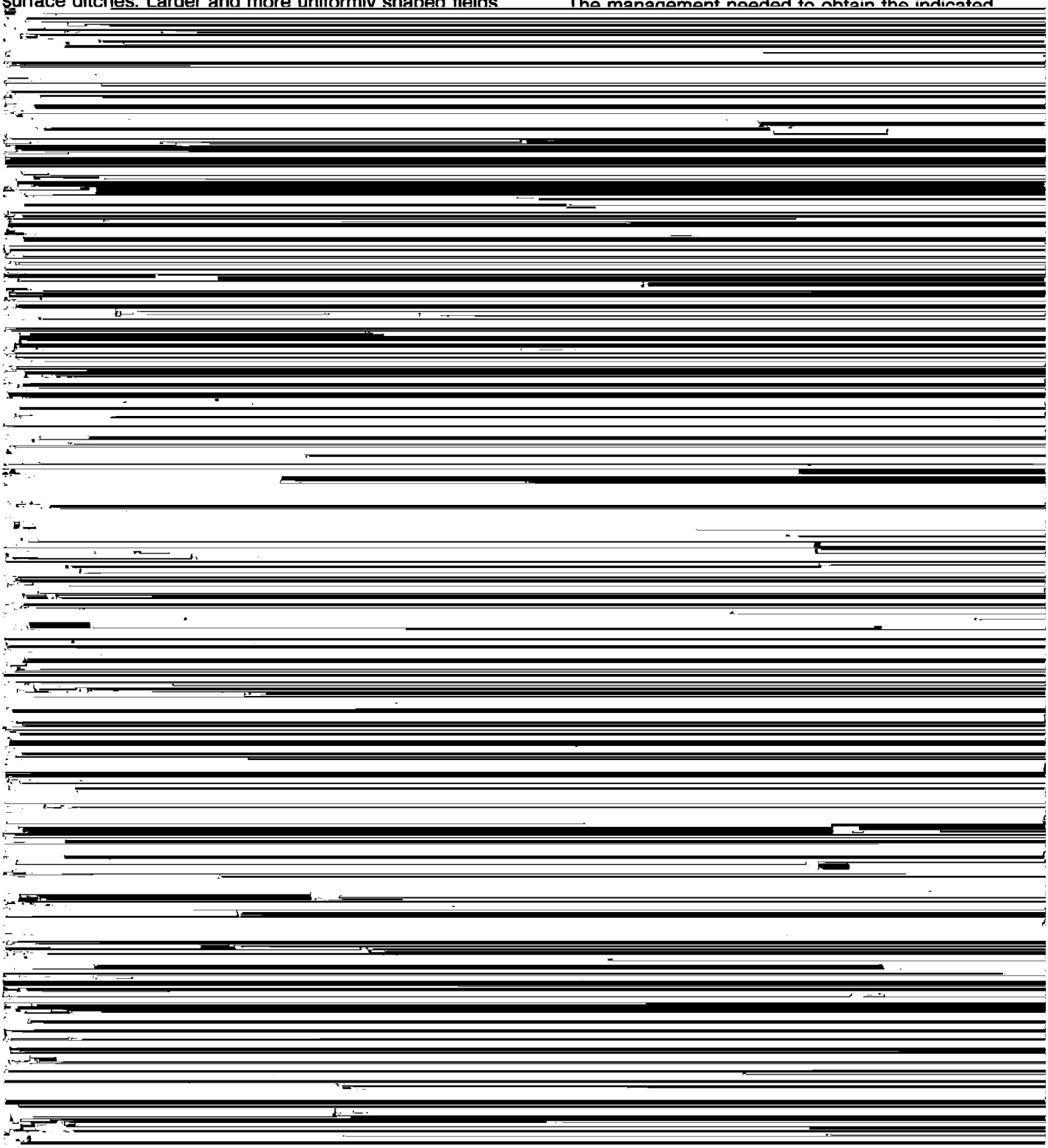
they are properly managed. Stocking rates and grazing periods need to be carefully managed for optimum forage production and to maintain an adequate cover of understory plants to control erosion. Additional information on the production of forage in woodland is in the section "Woodland Management and Productivity."

sandy loam surface layer, are low in organic matter content. The level of organic matter can be maintained or improved by growing crops that produce an extensive root system and an abundance of foliage, by leaving plant residue on the surface, and by growing perennial grasses and legumes in rotation with other crops.

ditches, laterals, and surface field ditches. The more recent approach to drainage in this parish is a combination of land smoothing with a minimum of surface ditches. Larger and more uniformly shaped fields

agents. Available yield data from nearby parishes and results of field trials and demonstrations are also considered.

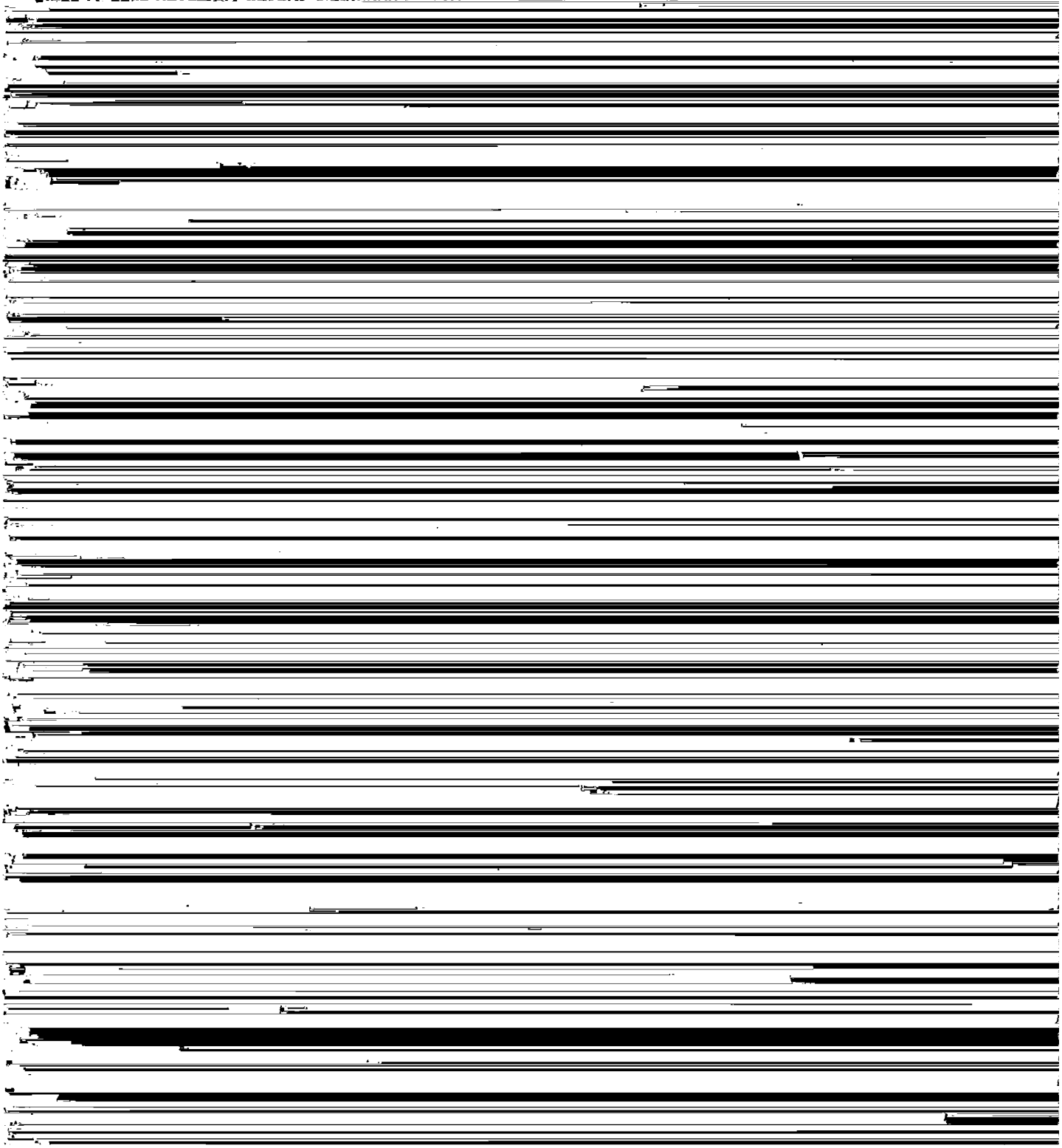
The management needed to obtain the indicated



Class III soils have severe limitations that reduce the choice of plants or that require special conservation practices, or both.

Class IV soils have very severe limitations that reduce

aeration is often impeded in clayey soils, particularly under wet conditions. Slope position strongly influences species composition as well as growth within an individual tree.

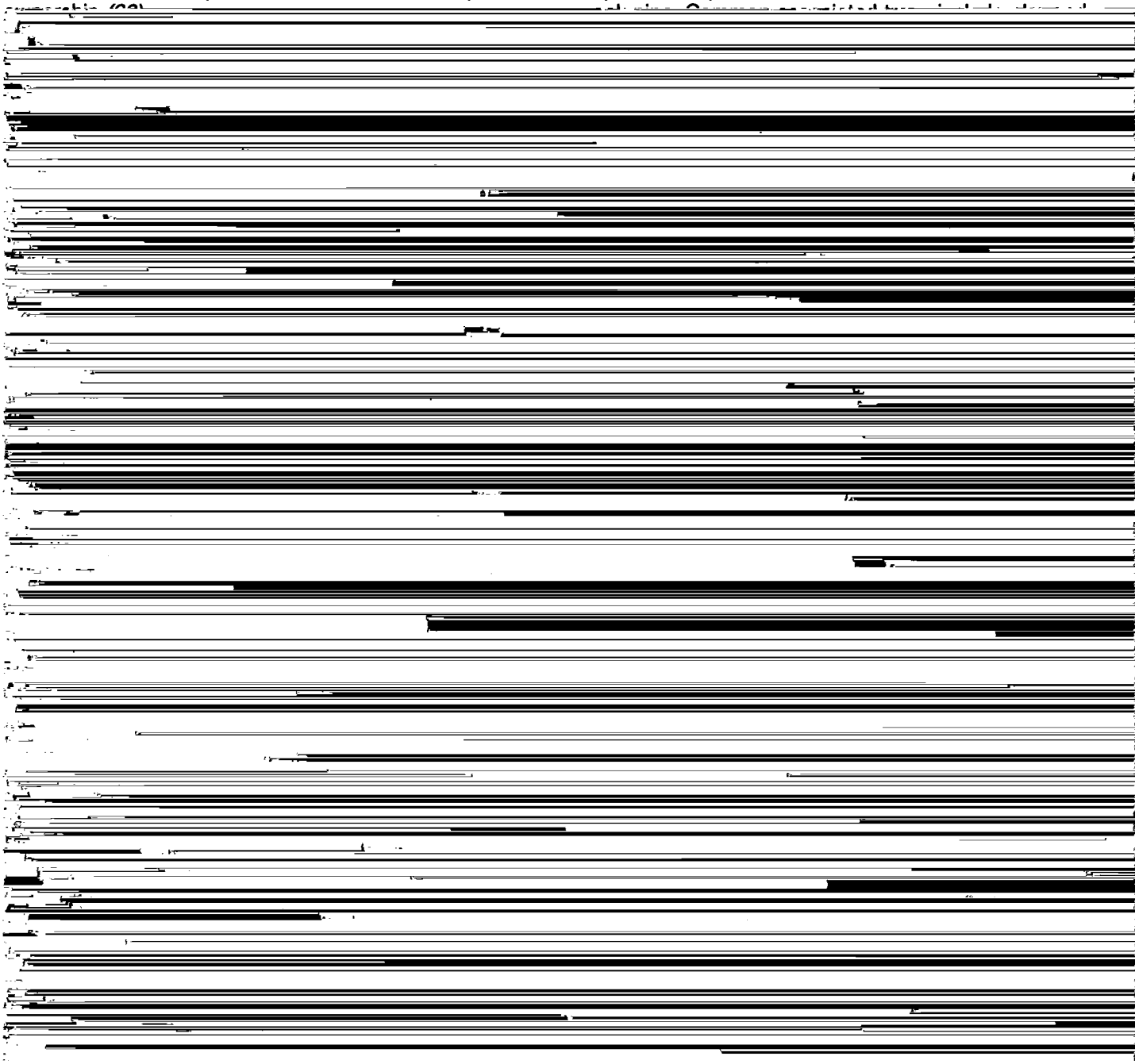


acres between 1964 and 1974. Most of the cleared land was converted to pastureland and urban areas. Other uses are cropland, urban land, and transmission and transportation corridors. The conversion of cleared land continued from 1974 to 1980, when woodland in St. Tammany Parish decreased by 49,900 acres. The woodland acreage in the parish probably will continue to decrease as urban areas increase in size.

About 6.5 percent of the forest land in St. Tammany Parish is owned by private farms, 7.7 percent is public forest land, and 85.8 percent is in miscellaneous private

oak, post oak, white oak, mockernut hickory, and pignut hickory, can be mixed with pines on well-drained soils; on more moist sites, sweetgum, red maple, water oak, and willow oak can be mixed with pines. Green ash and American beech are associated with this forest type in fertile, well drained coves and along stream bottoms.

The *oak-hickory* forest type covers 12 percent of the forest land in the parish. This kind of forest is one in which upland oaks or hickory, singly or in combination, make up most of the stocking except where pines make up 25 to 50 percent. In this case, the stand is classified



timber stand improvement are needed to improve both upland and bottom land forests.

The Soil Conservation Service, Louisiana Office of Forestry, and the Louisiana Cooperative Extension Service can help determine specific woodland management needs.

Environmental Values

Other values associated with woodlands include wildlife habitat, recreation, natural beauty, and conservation of soil and water.

The commercial forest land of St. Tammany Parish provides food and shelter for wildlife and offers opportunity for sport and recreation to many users annually. Hunting and fishing clubs in the parish lease or otherwise use the forest land. Forest land provides watershed protection, helps to arrest soil erosion and reduce sedimentation, and enhances the quality and value of water resources.

Trees can be planted to screen distracting views of dumps and other unsightly areas, muffle the sound of traffic, reduce the velocity of winds, and lend beauty to the landscape. Trees produce fruits and nuts for use by

Research has proven that a close correlation exists between the total potential yield of grasses, legumes, and forbs growing in similar soils and the amount of sunlight reaching the ground at midday in the forest. Herbage production continues to decline as the forest canopy becomes denser.

One of the main objectives in good woodland grazing management is to keep the woodland forage in excellent or good condition. If this is done, water is conserved, yields are improved, and the soils are protected.

Soils vary in their ability to produce trees. Depth, fertility, texture, and the available water capacity influence tree growth. Elevation, aspect, and climate determine the kinds of trees that can grow on a site. Available water capacity and depth of the root zone are major influences of tree growth.

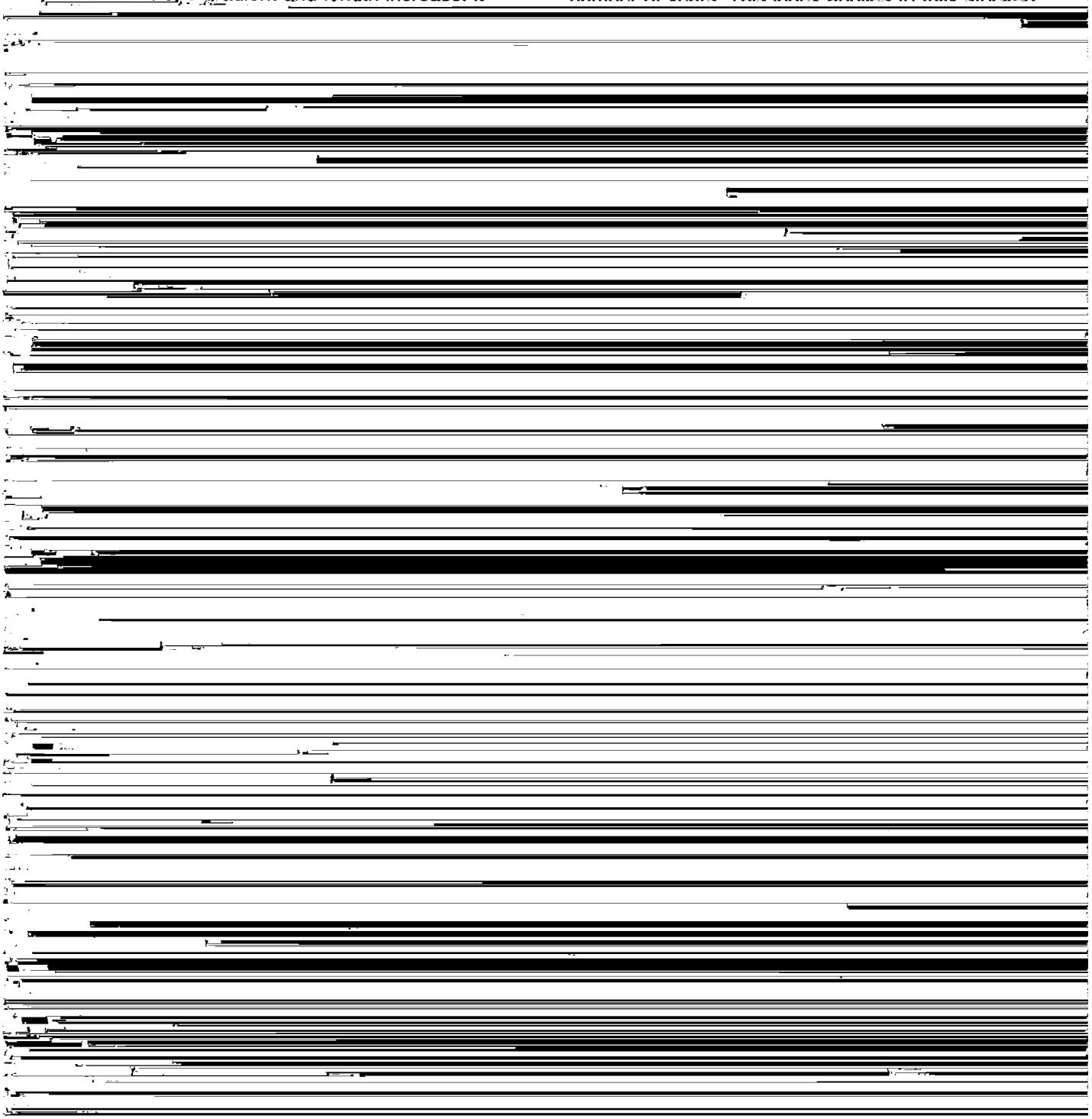
This soil survey can be used by woodland managers planning ways to increase the productivity of forest land. Some soils respond better to fertilization than others, and some are more susceptible to landslides and erosion after roads are built and timber is harvested. Some soils require special efforts to reforest. In the

no particular preventive measures are needed under ordinary conditions.

Ratings of *equipment limitation* indicate limits on the use of forest management equipment, year-round or seasonal, because of such soil characteristics as slope, wetness, or susceptibility of the surface layer to compaction. As slope gradient and length increase, it

cottonwood, 35 years for American sycamore, and 50 years for all other species.

The *site index* is determined by taking height measurements and determining the age of selected trees within stands of a given species. This index is the average height, in feet, that the trees attain in a specified number of years. This index applies to fully stocked



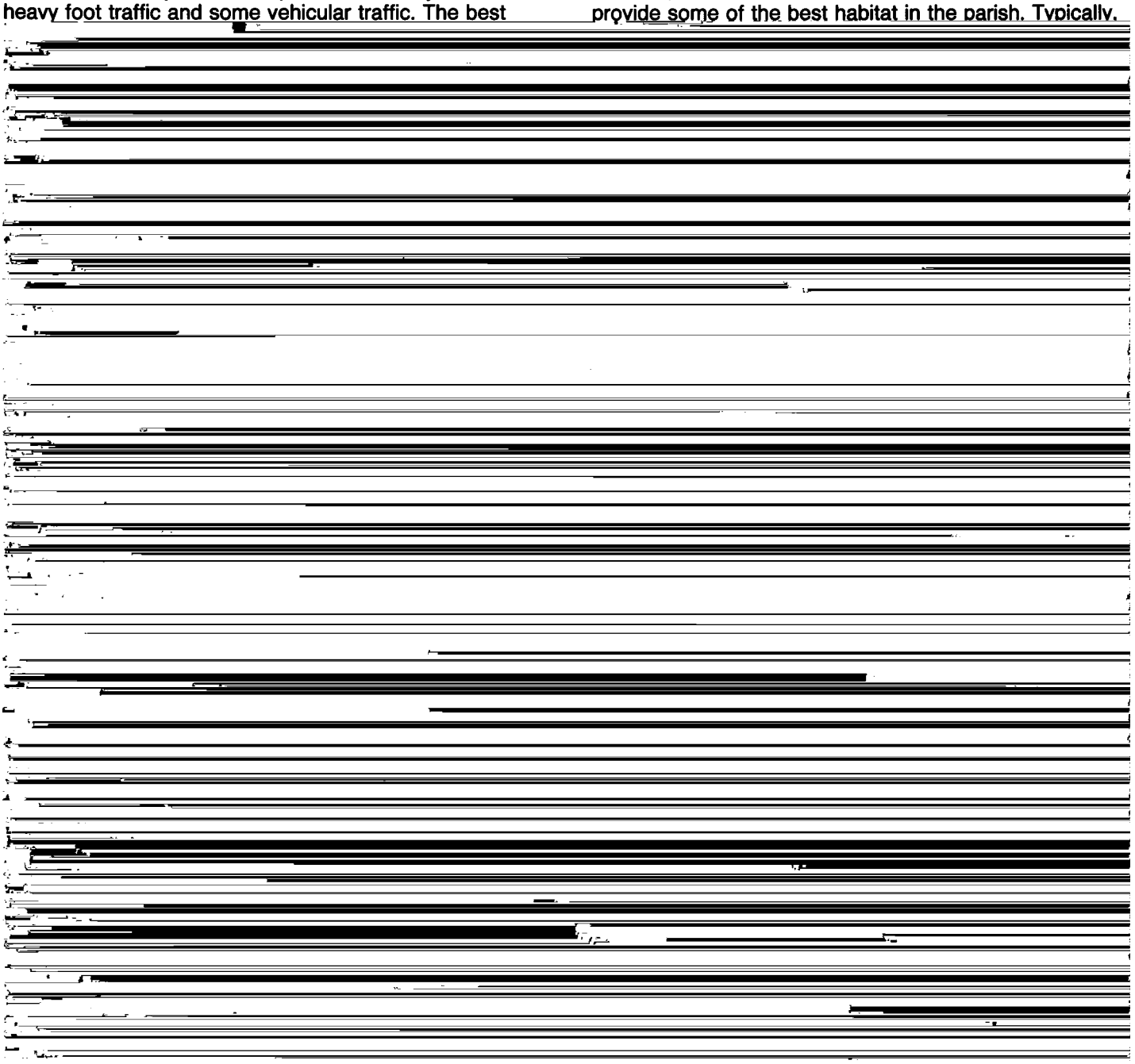
intensive maintenance, limited use, or by a combination of these measures.

The information in table 9 can be supplemented by other information in this survey, for example, interpretations for septic tank absorption fields in table 12 and interpretations for dwellings without basements and for local roads and streets in table 11.

Camp areas require site preparation, such as shaping and leveling the tent and parking areas, stabilizing roads and intensively used areas, and installing sanitary facilities and utility lines. Camp areas are subject to heavy foot traffic and some vehicular traffic. The best

Forest land managed for pine production totals 280,000 acres. Loblolly pine and slash pine are dominant. A large part of the parish is in the Eastern Gulf Coast Flatwoods Land Resource Area where the potential for pine timber production is high. The pine forests provide low to moderate quality habitat for white-tailed deer, squirrels, rabbits, and wild turkey. Periodic thinning and prescribed burning are management practices that are beneficial to woodland wildlife species.

Hardwoods are mainly along the major stream bottoms, such as the Pearl River bottom. These forests provide some of the best habitat in the parish. Typically,



Soils affect the kind and amount of vegetation that is available to wildlife as food and cover. They also affect the construction of water impoundments. The kind and abundance of wildlife depend largely on the amount and distribution of food, cover, and water. Wildlife habitat can be created or improved by planting appropriate vegetation, by maintaining the existing plant cover, or by promoting the natural establishment of desirable plants.

In table 10, the soils in the survey area are rated according to their potential for providing habitat for various kinds of wildlife. This information can be used in planning parks, wildlife refuges, nature study areas, and other developments for wildlife; in selecting soils that are suitable for establishing, improving, or maintaining specific elements of wildlife habitat; and in determining the intensity of management needed for each element of the habitat.

The potential of the soil is rated good, fair, poor, or very poor. A rating of *good* indicates that the element or kind of habitat is easily established, improved, or maintained. Few or no limitations affect management, and satisfactory results can be expected. A rating of *fair* indicates that the element or kind of habitat can be established, improved, or maintained in most places. Moderately intensive management is required for satisfactory results. A rating of *poor* indicates that limitations are severe for the designated element or kind of habitat. Habitat can be created, improved, or maintained in most places, but management is difficult and must be intensive. A rating of *very poor* indicates that restrictions for the element or kind of habitat are very severe and that unsatisfactory results can be expected. Creating, improving, or maintaining habitat is impractical or impossible.

The elements of wildlife habitat are described in the following paragraphs.

Grain and seed crops are domestic grains and seed-producing herbaceous plants. Soil properties and features that affect the growth of grain and seed crops are depth of the root zone, texture of the surface layer, available water capacity, wetness, slope, and flood hazard. Soil temperature and soil moisture are also considerations. Examples of wild herbaceous plants are bluestem, goldenrod, beggarweed, panicum, and fescue.

Hardwood trees and woody understory produce nuts or other fruit, buds, catkins, twigs, bark, and foliage. Soil properties and features that affect the growth of hardwood trees and shrubs are depth of the root zone, the available water capacity, and wetness. Examples of these plants are oak, poplar, cherry, sweetgum, hawthorn, dogwood, hickory, blackberry, and blueberry. Examples of fruit-producing shrubs that are suitable for planting on soils rated *good* are hawthorn, mayhaw, persimmon, and sumac.

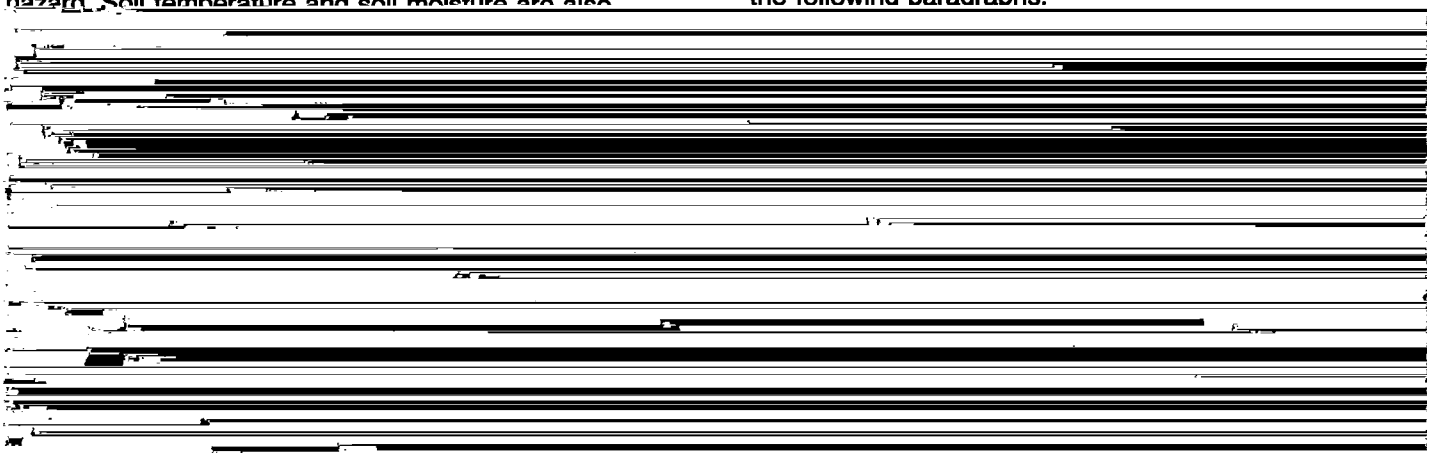
Coniferous plants furnish browse and seeds. Soil properties and features that affect the growth of coniferous trees, shrubs, and ground cover are depth of the root zone, available water capacity, and wetness. Examples of coniferous plants are pine and cedar.

Shrubs are bushy woody plants that produce fruit, buds, twigs, bark, and foliage. Soil properties and features that affect the growth of shrubs are depth of the root zone, available water capacity, salinity, and soil moisture. Examples of shrubs are sumac, persimmon, and hawthorn.

Wetland plants are annual and perennial, wild herbaceous plants that grow on moist or wet sites. Submerged or floating aquatic plants are excluded. Soil properties and features affecting wetland plants are texture of the surface layer, wetness, reaction, salinity, and slope. Examples of wetland plants are smartweed, wild millet, wildrice, saltgrass, cordgrass, rushes, sedges, and reeds.

Shallow water areas have an average depth of less than 5 feet. Some are naturally wet areas. Others are created by dams, levees, or other water-control structures. Soil properties and features affecting shallow water areas are slope and permeability. Examples of shallow water areas are marshes, waterfowl feeding areas, and ponds.

The habitat for various kinds of wildlife is described in the following paragraphs.



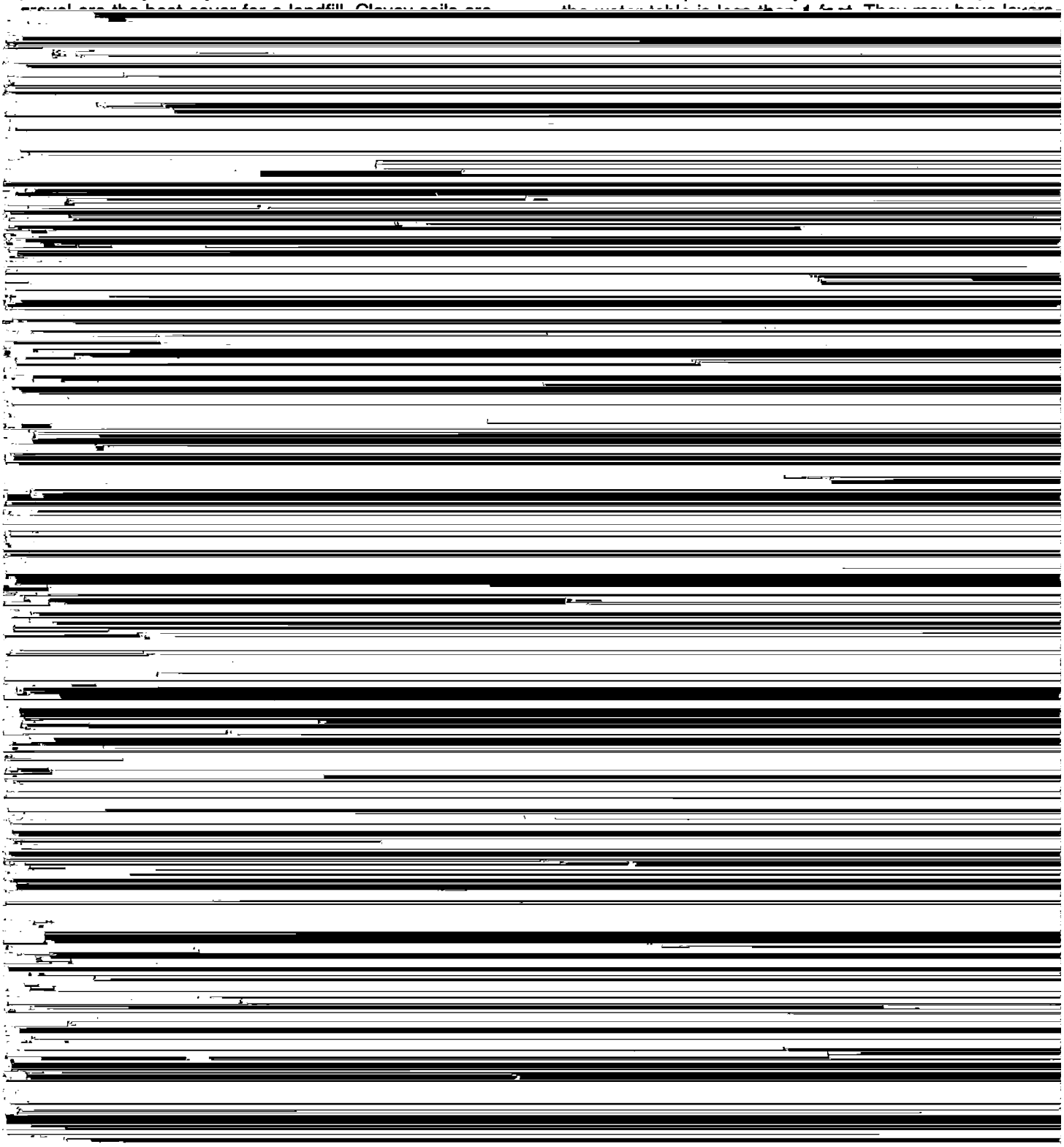
attracted to such areas are ducks, geese, herons, shore [illegible] structures and pavements by comparing the performance

limited to less than 6 feet. The ratings are based on soil properties, site features, and observed performance of the soils. Depth to a high water table, flooding, and slope affect the ease of excavating and grading. Soil strength

base of the absorption field, if slope is excessive, or if the water table is near the surface. There must be unsaturated soil material beneath the absorption field to filter the effluent effectively. Many local ordinances

Soil texture, wetness, and slope affect the ease of removing and spreading the material during wet and dry periods. Loamy or silty soils that are free of excess

foot to 3 feet. Soils rated *poor* have a plasticity index of more than 10, a high shrink-swell potential, or slopes of more than 25 percent. They are wet, and the depth to



moisture and releases a variety of plant-available nutrients as it decomposes.

Water Management

Table 14 gives information on the soil properties and site features that affect water management. The degree and kind of soil limitations are given for pond reservoir areas; embankments, dikes, and levees; and aquifer-fed ponds. The limitations are considered *slight* if soil

compaction characteristics. Unfavorable features include less than 5 feet of suitable material and a high content of organic matter or salts or sodium. A high water table affects the amount of usable material. It also affects trafficability.

Drainage is the removal of excess surface and subsurface water from the soil. How easily and effectively the soil is drained depends on the depth to layers that affect the rate of water movement;

Soil Properties

Data relating to soil properties are collected during the course of the soil survey. The data and the estimates of soil and water features, listed in tables, are explained on the following pages.

Soil properties are determined by field examination of the soils and by laboratory index testing of some benchmark soils. Established standard procedures are followed. During the survey, many shallow borings are made and examined to identify and classify the soils and to delineate them on the soil maps. Samples are taken from some typical profiles and tested in the laboratory to determine grain-size distribution, plasticity, and

Classification of the soils is determined according to the Unified soil classification system *(3)* and the system adopted by the American Association of State Highway and Transportation Officials *(2)*.

The Unified system classifies soils according to properties that affect their use as construction material. Soils are classified according to grain-size distribution of the fraction less than 3 inches in diameter and according to plasticity index, liquid limit, and organic matter content. Sandy and gravelly soils are identified as SP, SM, and SC; silty and clayey soils as ML, CL, MH, CH,

estimates are based on test data from the survey area, or from nearby areas, and on field examination.

Physical and Chemical Properties

Table 16 shows estimates of some characteristics and features that affect soil behavior. These estimates are given for the major layers of each soil in the survey area. The estimates are based on field observations and on test data for these and similar soils.

Clay as a soil separate, or component, consists of mineral soil particles that are less than 0.002 millimeter in diameter. In this table, the estimated clay content of each major soil layer is given as a percentage, by weight, of the soil material that is less than 2 millimeters in diameter.

The amount and kind of clay greatly affect the fertility and physical condition of the soil. They influence the soil's adsorption of cations, moisture retention, shrink-swell potential, permeability, plasticity, the ease of soil dispersion, and other soil properties. The amount and kind of clay in a soil also affect tillage and earthmoving operations.

Moist bulk density is the weight of soil (ovendry) per unit volume. Volume is measured when the soil is at field moisture capacity, that is, the moisture content at 1/3 bar moisture tension. Weight is determined after drying the soil at 105 degrees C. In this table, the estimated moist bulk density of each major soil horizon is expressed in grams per cubic centimeter of soil material that is less than 2 millimeters in diameter. Bulk density data are used to compute shrink-swell potential, available water capacity, total pore space, and other soil properties. The moist bulk density of a soil indicates the pore space available for water and roots. A bulk density of more than 1.6 can restrict water storage and root penetration. Moist bulk density is influenced by texture, kind of clay, content of organic matter, and soil structure.

Permeability refers to the ability of a soil to transmit water or air. The estimates indicate the rate of movement of water through the soil when the soil is saturated. They are based on soil characteristics observed in the field, particularly structure, porosity, and texture. Permeability is considered in the design of soil drainage systems, septic tank absorption fields, and construction where the rate of water movement under saturated conditions affects behavior.

Available water capacity refers to the quantity of water that the soil is capable of storing for use by plants. The capacity for water storage in each major soil layer is stated in inches of water per inch of soil. The capacity varies, depending on soil properties that affect the retention of water and the depth of the root zone. The most important properties are the content of organic matter, soil texture, bulk density, and soil structure. Available water capacity is an important factor in the choice of plants or crops to be grown and in the design and management of irrigation systems. Available water capacity is not an estimate of the quantity of water actually available to plants at any given time.

Soil reaction is a measure of acidity or alkalinity and is expressed as a range in pH values. The range in pH of each major horizon is based on many field tests. For many soils, values have been verified by laboratory analyses. Soil reaction is important in selecting crops and other plants, in evaluating soil amendments for fertility and stabilization, and in determining the risk of corrosion.

Salinity is a measure of soluble salts in the soil at saturation. It is expressed as the electrical conductivity of the saturation extract, in millimhos per centimeter at 25 degrees C. Estimates are based on field and laboratory measurements at representative sites of nonirrigated soils. The salinity of irrigated soils is affected by the quality of the irrigation water and by the frequency of water application. Hence, the salinity of soils in individual fields can differ greatly from the value given in the table. Salinity affects the suitability of a soil for crop production, the stability of soil if used as construction material, and the potential of the soil to corrode metal and concrete.

Shrink-swell potential is the potential for volume change in a soil with a loss or gain in moisture. Volume change occurs mainly because of the interaction of clay minerals with water and varies with the amount and type of clay minerals in the soil. The size of the load on the soil and the magnitude of the change in soil moisture content influence the amount of swelling of soils in place. Laboratory measurements of swelling of undisturbed clods were made for many soils. For others, swelling was estimated on the basis of the kind and amount of clay minerals in the soil and on measurements of similar soils.

If the shrink-swell potential is rated moderate to very high, shrinking and swelling can cause damage to buildings, roads, and other structures. Special design is often needed.

Shrink-swell potential classes are based on the change in length of an unconfined clod as moisture content is increased from air-dry to field capacity. The change is based on the soil fraction less than 2 millimeters in diameter. The classes are *low*, a change of less than 3 percent; *moderate*, 3 to 6 percent; and *high*, more than 6 percent. *Very high*, greater than 9 percent, is sometimes used.

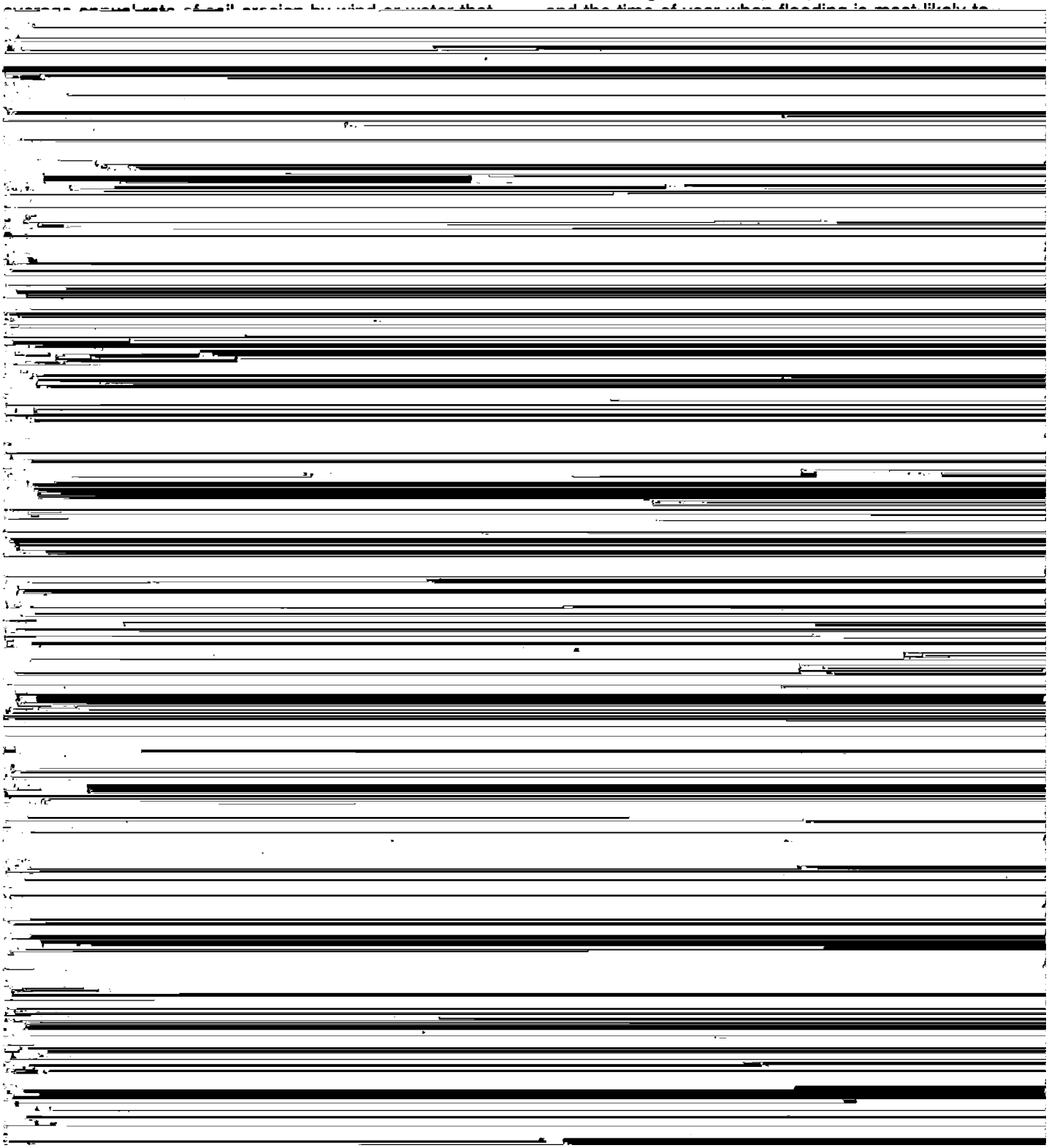
Erosion factor K indicates the susceptibility of a soil to sheet and rill erosion by water. Factor K is one of six factors used in the Universal Soil Loss Equation (USLE) to predict the average annual rate of soil loss by sheet and rill erosion *(36)*. Losses are expressed in tons per acre per year. These estimates are based primarily on percentage of silt, sand, and organic matter (up to 4 percent) and on soil structure and permeability. Values of K range from 0.02 to 0.69. The higher the value, the

more susceptible the soil is to sheet and rill erosion by water.

Erosion factor T is an estimate of the maximum

water in swamps and marshes or in a closed depression is considered ponding.

Table 17 gives the frequency and duration of flooding



The two numbers in the "High water table-Depth" column indicate the normal range in depth to a saturated zone. Depth is given to the nearest half foot. The first numeral in the range indicates the highest water level. A plus sign preceding the range in depth indicates that the water table is above the surface of the soil. "More than 6.0" indicates that the water table is below a depth of 6 feet or that the water table exists for less than a month.

Subsidence is the settlement of organic soils or of saturated mineral soils of very low density. Subsidence results from either desiccation and shrinkage or oxidation of organic material, or both, following drainage. Subsidence takes place gradually, usually over a period of several years. Table 17 shows the expected initial subsidence, which usually is a result of drainage, and total subsidence, which results from a combination of factors.

Not shown in the table is subsidence caused by an imposed surface load or by the withdrawal of ground water throughout an extensive area as a result of lowering the water table.

Risk of corrosion pertains to potential soil-induced

- Light—intensity and duration
- Temperature—air and soil
- Precipitation—distribution and amount
- Atmospheric carbon dioxide concentration

Plant factors (species and hybrid specific):

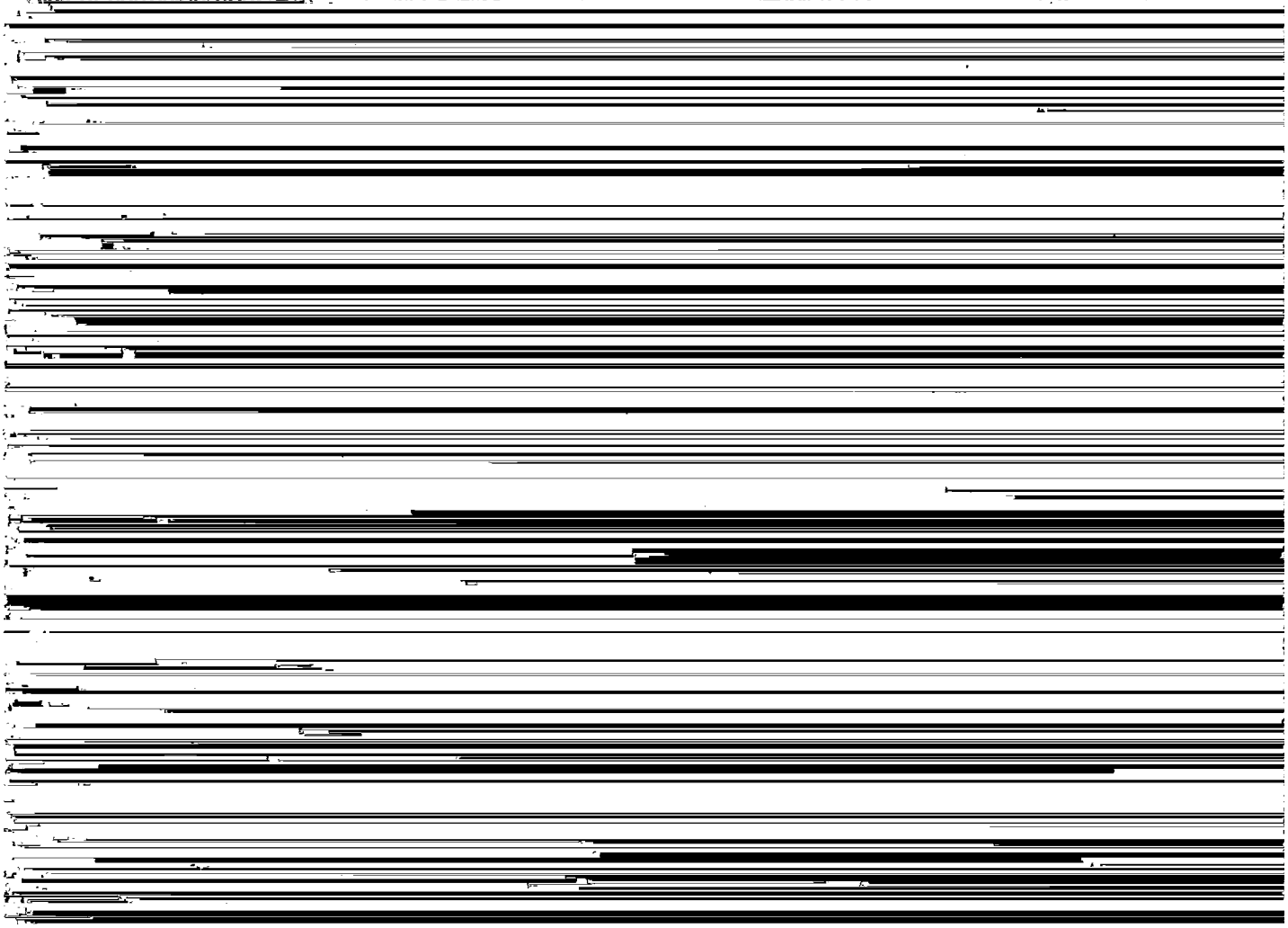
- Rate of nutrient and water uptake
- Rate of growth and related plant functions

Soil factors—physical properties:

- Particle-size distribution and texture
- Structure
- Surface area
- Bulk density
- Water retention and flow
- Aeration

Soil factors—chemical properties:

- *Quantity factor*. Amount of an element in the soil that is readily available for uptake by plants. To determine the quantity factor, the available supply of an element is removed from the soil, using a suitable extractant, and is analyzed.
- *Intensity factor*. The concentration of an element



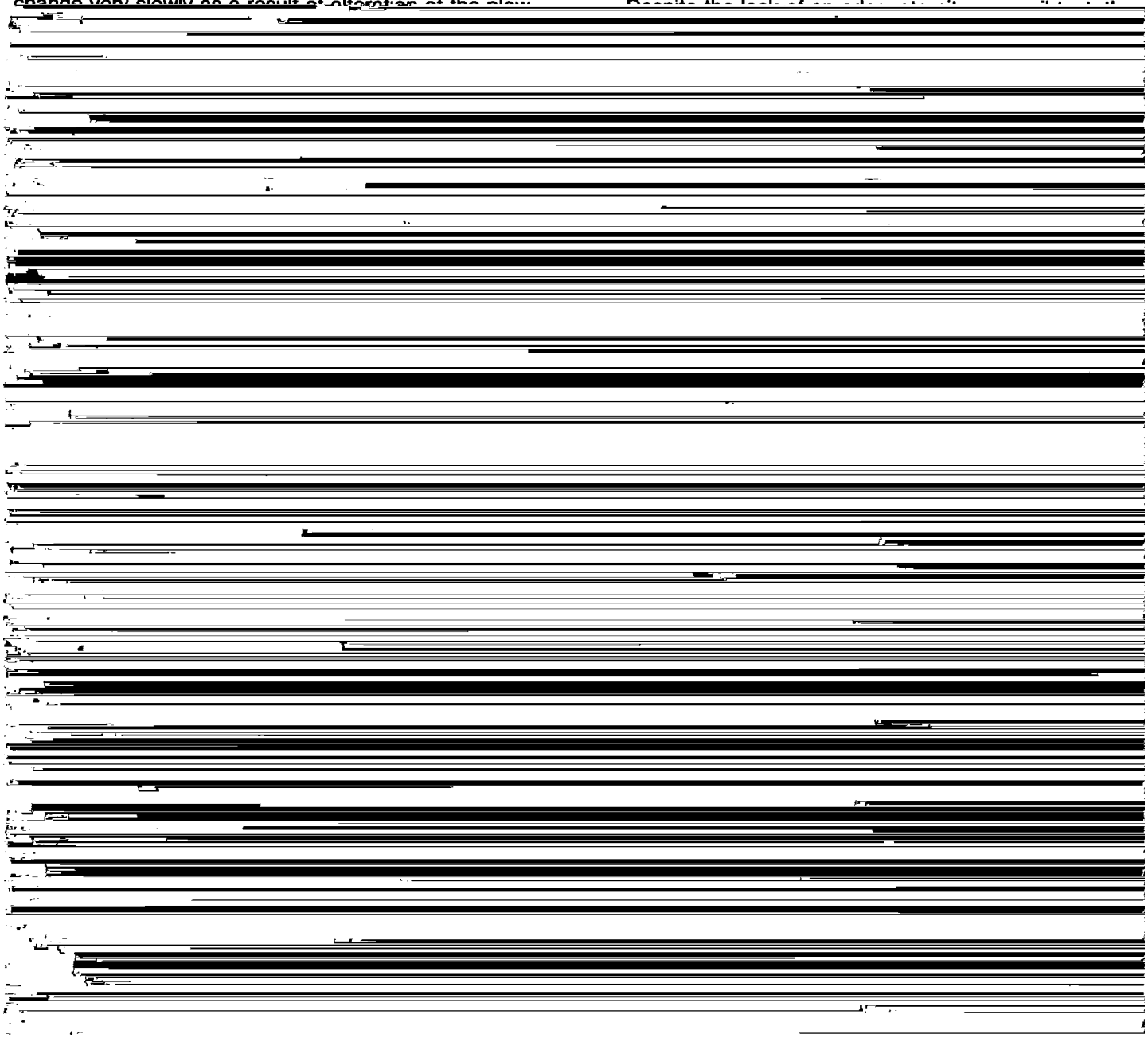
elements. Current soil tests measure only one soil factor, the available supply of one or more nutrients in the plow layer. Where crop production is clearly limited by the available supply of one or more nutrients in the plow layer, existing soil tests generally can diagnose the problem and reliable recommendations to correct the problem can be made. Soil management systems generally are based on physical and chemical alteration of the plow layer. Characteristics of this layer can vary from one location to another, depending upon management practices and soil use.

The underlying layers are less subject to change or change very slowly as a result of alteration of the plow

Nitrogen. Generally, over 90 percent of the nitrogen in the surface layer is in the form of organic nitrogen. Most of the nitrogen in the subsoil is in the form of fixed ammonium compounds. These forms of nitrogen are unavailable for plant uptake, but they can be converted to readily available ammonium and nitrate species.

Nitrogen is generally the most limiting nutrient element in crop production because plants have a high demand for it. Nitrogen fertilizer recommendations are nearly always based on the nitrogen requirement of the crop rather than nitrogen soil test levels, since no reliable nitrogen soil tests are available.

Despite the lack of



unavailable phosphorus in the soil. If the available supply of phosphorus is low, then available phosphorus levels should be gradually built up and maintained where possible.

Potassium. Potassium exists in three major forms in soils; exchangeable potassium associated with negatively charged sites on clay mineral surfaces, nonexchangeable potassium trapped between clay mineral interlayers, and structural potassium within the crystal lattice of minerals. The exchangeable form of potassium in soils is replaceable by other cations and is generally readily available for plant uptake. To become available to plants, the other forms of potassium must be converted to the exchangeable form via weathering reactions.

The exchangeable potassium content of the soils is an estimate of the plant available supply of potassium. According to soil test interpretation guidelines, the available supply of potassium in the mineral soils of St. Tammany Parish is mainly in the very low or low range, depending on the soil texture. Generally, in mineral soils, the higher levels of exchangeable potassium are in the silty clay loam and sandy clay loam soils. The additions of fertilizer magnesium can be beneficial to crop production on many of the soils of St. Tammany Parish.

Calcium. Calcium exists in soils as exchangeable calcium associated with negatively charged sites on clay mineral surfaces and as structural calcium in mineral crystal lattices. Exchangeable calcium generally is available for plant uptake while structural calcium is not.

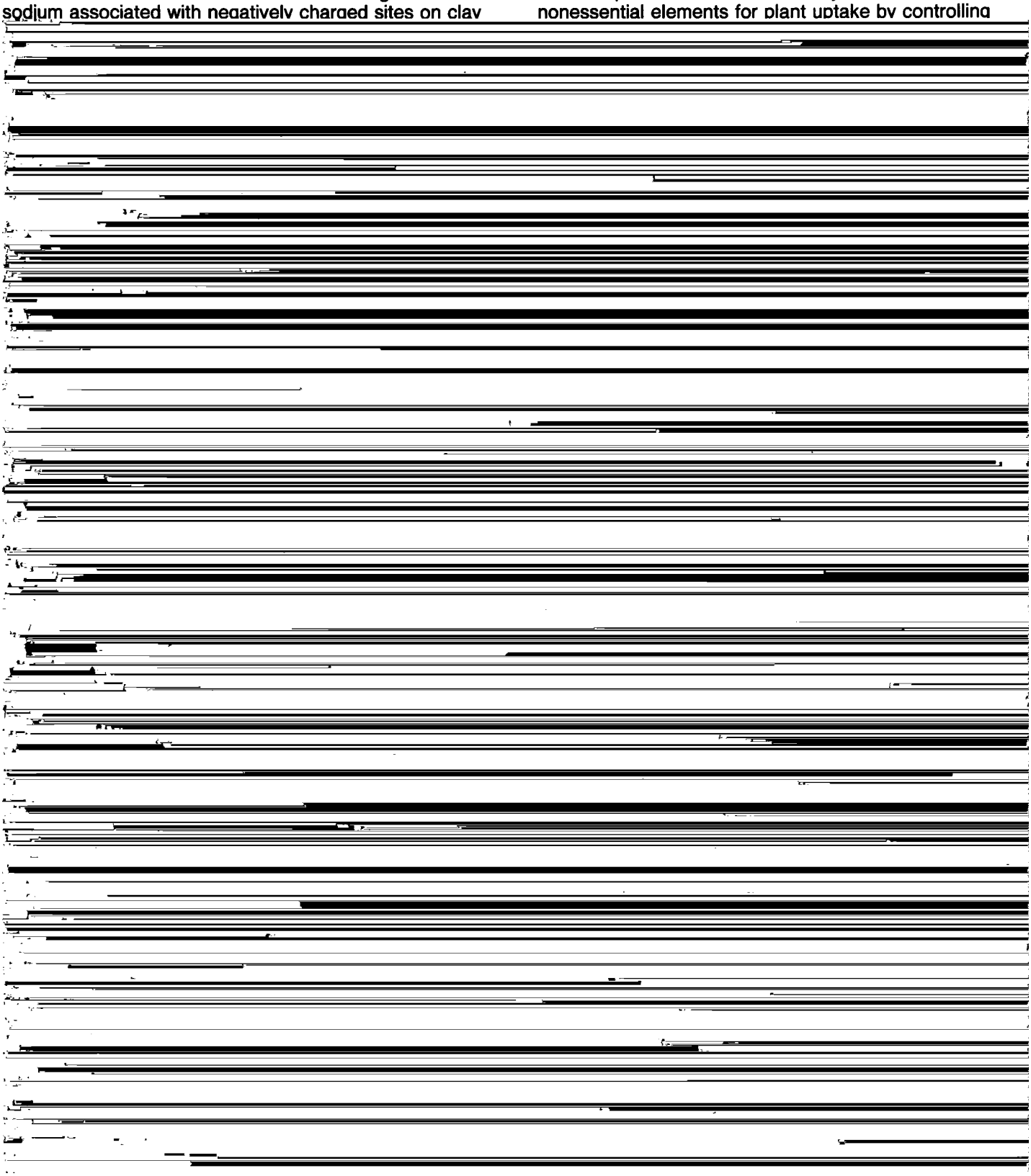
The exchangeable calcium levels in the mineral soils of St. Tammany Parish are low or medium. Calcium deficiencies in plants are rare. Thus, the levels of exchangeable calcium in the mineral soils of St. Tammany Parish are adequate for crop production. Calcium is normally added to soils when they are limed.

High levels of exchangeable calcium are in the clayey and organic soils of the parish. Most areas of these soils are in undrained marshes and swamps.

Organic Matter. The organic matter content of a soil greatly influences other soil properties. High organic matter levels in mineral soils are desirable, and low levels can lead to many problems. Increasing the organic matter content of a soil can greatly improve the soil's structure, drainage, and other physical properties. It can

Sodium. Sodium exists in soils as exchangeable sodium associated with negatively charged sites on clay

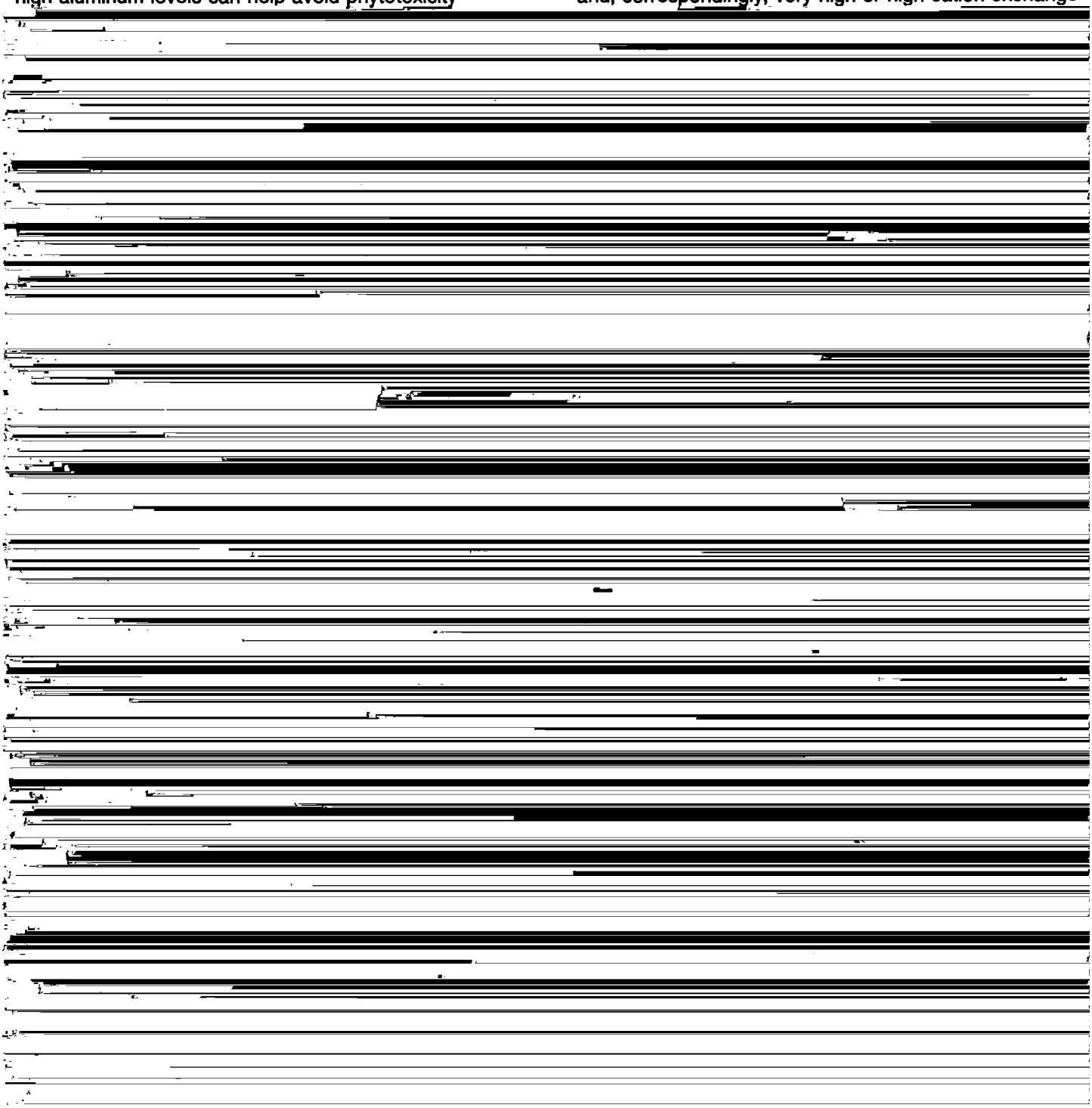
soil. Soil pH controls the availability of essential and nonessential elements for plant uptake by controlling



studied in Louisiana. Liming soil to pH 5.5 is probably the most widespread method of reducing exchangeable aluminum levels. There is a wide range of susceptibility to aluminum phytotoxicity among many agronomic crops depending, in some cases, upon the particular cultivar grown. Planting crops or cultivars that are tolerant of high aluminum levels can help avoid phytotoxicity

more clayey than the surface and subsurface layers; therefore, the cation-exchange capacity is high in the surface layer, lower in the subsurface layer, and higher again in the subsoil.

The organic and clayey soils of the marshes and swamps have very high or high organic matter content and, correspondingly, very high or high cation-exchange



Aluminum—potassium chloride extraction (6G2).
Hydrogen—potassium chloride extraction (6G2).
Iron—dithionate-citrate extract (6C1).
Extractable phosphorus—(Bray No. 1).

Classification of the Soils

The system of soil classification used by the National Cooperative Soil Survey has six categories *(34)*. Beginning with the broadest, these categories are the order, suborder, great group, subgroup, family, and series. Classification is based on soil properties observed in the field or inferred from those observations or on laboratory measurements. Table 21 shows the classification of the soils in the survey area. The categories are defined in the following paragraphs.

and characteristics considered are particle-size class, mineral content, temperature regime, depth of the root zone, consistence, moisture equivalent, slope, and permanent cracks. A family name consists of the name of a subgroup preceded by terms that indicate soil properties. An example is coarse-loamy, siliceous, acid, thermic Typic Fluvaquents.

SERIES. The series consists of soils that have similar horizons in their profile. The horizons are similar in color

Abita soils commonly are near Brimstone, Guyton, Myatt, Prentiss, and Stough soils. Brimstone, Guyton, and Myatt soils are poorly drained. These soils are in lower positions on the landscape than Abita soils. Brimstone soils have high concentrations of sodium in the subsoil, and Guyton and Myatt soils are grayish throughout. Prentiss soils are moderately well drained, and Stough soils are somewhat poorly drained. Prentiss and Stough soils are in slightly higher positions on the landscape. They are forming in older sediments than Abita soils, and they have more sand in the subsoil.

Typical pedon of Abita silt loam, 0 to 2 percent slopes; 5 miles west of Covington, 1.3 miles west of Highway 1077, 1,300 feet northwest of the intersection of Interstate 12 and Highway 1085, 50 feet east of a fence row, SW1/4NE1/4 sec. 4, T. 7 S., R. 10 E.

Ap—0 to 4 inches; dark grayish brown (10YR 4/2) silt loam; weak fine granular structure; friable; common fine roots; neutral; clear smooth boundary.

BA—4 to 15 inches; brownish yellow (10YR 6/6) silt loam; few fine faint gray mottles; weak medium subangular blocky structure; friable; few fine roots;

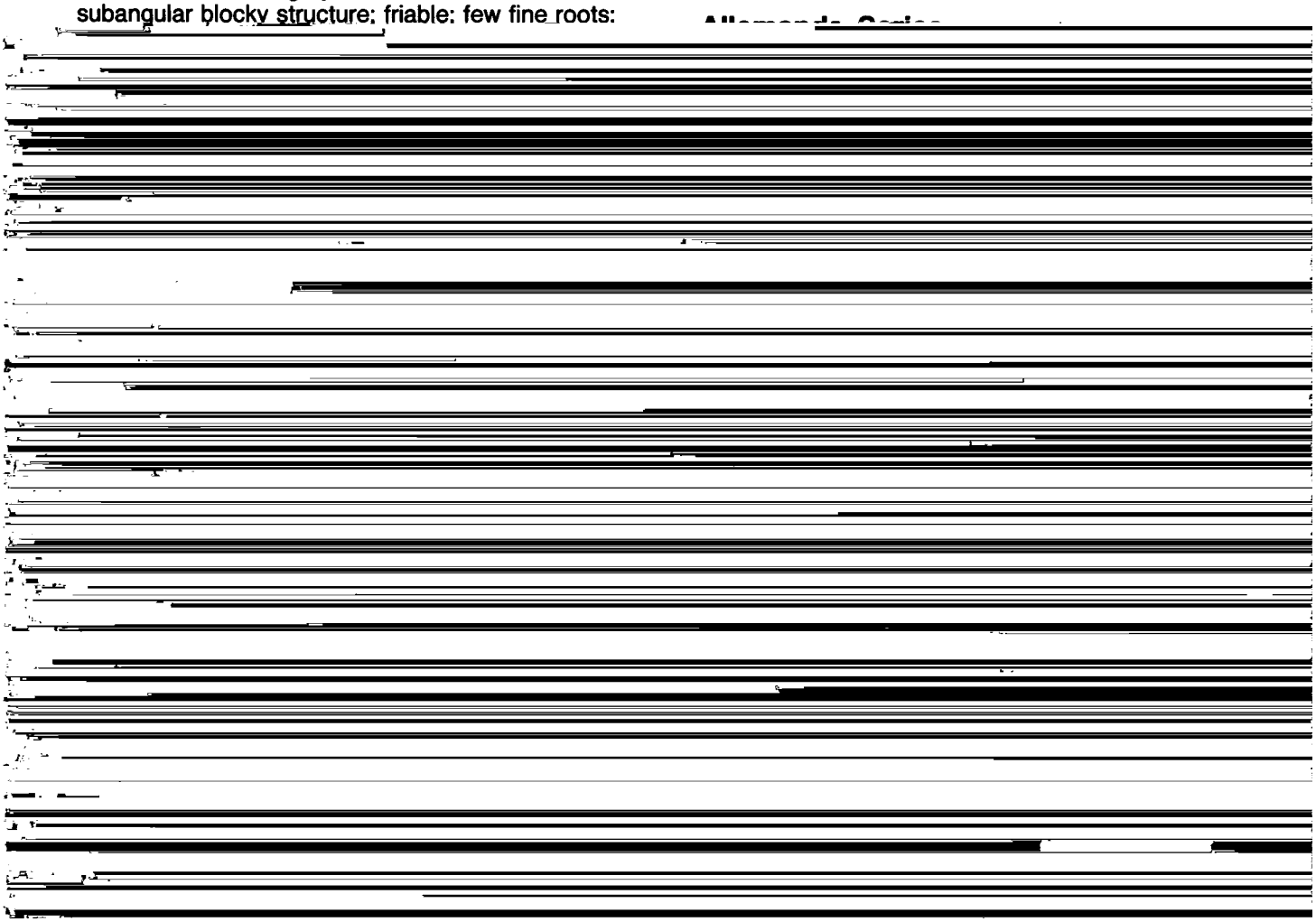
The BA horizon has hue of 7.5YR, 10YR, or 2.5Y, value of 4 to 6, and chroma of 3 to 6. Texture is silt loam or silty clay loam. Mottles in shades of gray range from few to many. Reaction ranges from very strongly acid to neutral.

Some pedons have an E horizon rather than a BA horizon. The E horizon and the E part of the Bt/E horizon have hue of 10YR or 2.5Y, value of 5 to 7, and chroma of 1 to 3. Texture is silt loam or very fine sandy loam. Reaction ranges from extremely acid to slightly acid.

The Bt part of the Bt/E horizon and the Bt horizon have hue of 7.5YR, 10YR, or 2.5Y, value of 4 to 6, and chroma of 3 to 6. Mottles in shades of yellow, brown, and red range from few to many. Texture is silt loam or silty clay loam. Reaction ranges from very strongly acid to slightly acid.

The Btg horizon has hue of 10YR, 2.5Y, or 5Y, value of 4 to 6, and chroma of 1 or 2. Texture is silt loam, loam, clay loam, or silty clay loam. Reaction ranges from strongly acid to mildly alkaline.

Allemands Series



very fluid, flows easily through fingers when squeezed leaving hand empty; 30 percent mineral;

soils. Barbary soils are in positions similar to those of the Arat soils and they are clayey throughout. Largoco soils

Highway 11 in the Pearl River Wildlife Management Area, 600 feet west of a gravel road, 200 feet south of the parking area, sec. 33, T. 7 S., R. 15 E.

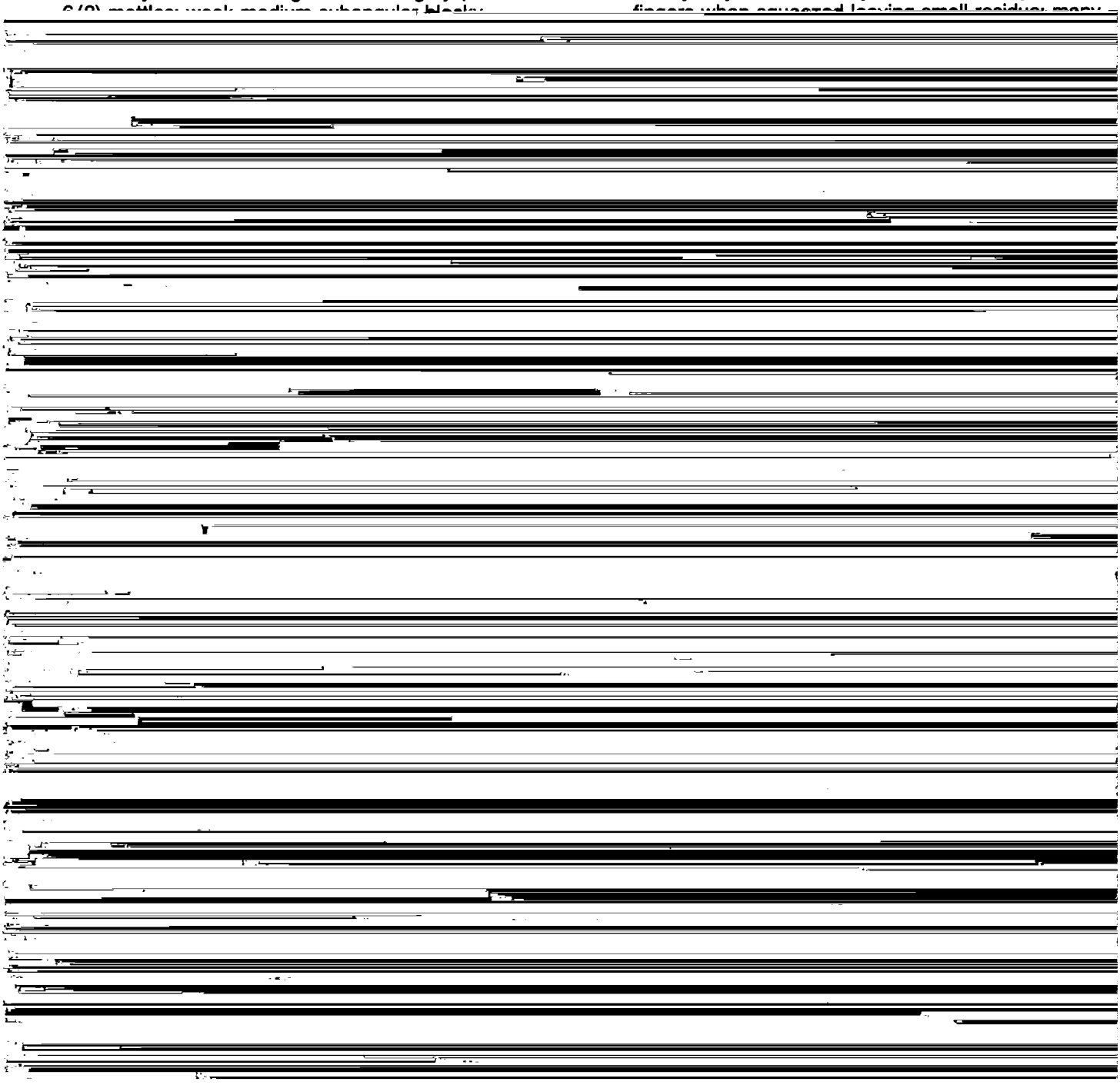
A—0 to 4 inches; dark brown (10YR 4/3) silt loam; weak fine granular structure; friable; common fine and medium roots; medium acid; clear smooth boundary.

Bw—4 to 12 inches; brown (10YR 5/3) silt loam; few medium distinct yellowish brown (10YR 5/8) mottles and many medium faint light brownish gray (10YR 6/2) mottles; weak medium subangular blocky

freshwater marshes and do not have woody fragments in the profile.

Typical pedon of Barbary mucky clay; 4 miles west of Madisonville, 2.3 miles south of Highway 22, 1,000 feet east of the St. Tammany-Tangipahoa Parish line, 200 feet west of canal, SW1/4SW1/4 sec. 30, T. 7 S., R. 10 E.

A1—0 to 4 inches; very dark grayish brown (10YR 3/2) mucky clay; massive; very fluid, flows easily between fingers when squeezed leaving small residue; many



A—0 to 5 inches; dark grayish brown (10YR 4/2) loam; weak fine granular structure; friable; common fine and medium roots; strongly acid; clear wavy boundary.

Ag—5 to 10 inches; grayish brown (10YR 5/2) sandy loam; weak fine granular structure; friable; few fine and medium roots; few reddish brown stains; very strongly acid; gradual wavy boundary.

Cg1—10 to 32 inches; gray (10YR 5/1) loam; massive; friable; strongly acid; gradual smooth boundary.

Cg2—32 to 60 inches; light gray (10YR 6/1) sandy loam; massive; friable; few medium yellowish brown (10YR 5/4) stains around old root channels; few thin strata of loamy sand; strongly acid.

This soil is strongly acid or very strongly acid throughout except where lime has been added. Clay content in the 10- to 40-inch control section ranges from 10 to 18 percent. The effective cation-exchange capacity of this soil is 50 percent or more saturated with exchangeable aluminum within a depth of 30 inches.

The A horizon has hue of 10YR or 7.5YR, value of 4 to 6, and chroma of 1 to 3. Some pedons have mottles in shades of brown and yellow. Texture is fine sandy loam or loam.

The Cg horizon has hue of 10YR or 2.5Y, value of 4 to 7, and chroma of 1 or 2, or it is neutral and has value of 4 to 7. Few to many mottles or stains are in shades of red, brown, or yellow. Texture is sandy loam, fine sandy loam, loam, or silt loam. Thin strata of contrasting textures are in some pedons.

Brimstone Series

The Brimstone series consists of poorly drained, slowly permeable soils that have high levels of sodium in the subsoil. These soils formed in loamy sediment on low, broad terraces of late Pleistocene age. Slopes are less than 1 percent.

Soils of the Brimstone series are fine-silty, siliceous, thermic Glossic Natraqualfs.

Brimstone soils commonly are near Abita, Cuxton,

Ap—0 to 5 inches; dark gray (10YR 4/1) silt loam; weak fine granular structure; friable; common fine roots; slightly acid; clear smooth boundary.

Eg—5 to 17 inches; grayish brown (10YR 5/2) silt loam; few fine faint brown mottles; weak medium subangular blocky structure; friable; few fine roots; neutral; clear irregular boundary.

E/Bn—17 to 24 inches; about 70 percent light brownish gray (2.5Y 6/2) silt loam (E); about 30 percent light gray (10YR 6/1) silt loam (Bn); few medium faint light yellowish brown (2.5Y 6/4) mottles; weak medium subangular blocky structure; friable; common fine pores; few dark gray bands of clay in E material; neutral; gradual irregular boundary.

Bn/E—24 to 33 inches; about 70 percent light gray (10YR 6/1) silt loam (Bn); common medium faint yellowish brown (10YR 5/8) mottles; weak coarse subangular blocky structure parting to moderate medium subangular blocky; friable; few thin patchy clay films on faces of peds; about 30 percent light brownish gray (2.5YR 6/2) silt loam (E); firm; weak medium subangular blocky structure; few pockets of light gray (10YR 7/1) silt loam; few dark gray bands of clay; neutral; gradual irregular boundary.

Btng1—33 to 45 inches; light olive gray (5Y 6/2) silt loam; common medium prominent yellowish brown (10YR 5/6) mottles; weak coarse prismatic structure parting to moderate medium subangular blocky; firm; thin discontinuous clay films on faces of peds; few pockets of gray silt loam; neutral; gradual wavy boundary.

Btng2—45 to 66 inches; light olive gray (5Y 6/2) silt loam; common medium prominent yellowish brown (10YR 5/8) mottles; weak coarse subangular blocky structure; firm; thin patchy clay films; few thin silt coatings on faces of some peds; neutral.

The solum is 40 to 100 inches thick. Exchangeable sodium percentage ranges from 15 to 30 within the upper 6 inches of the natric horizon and within 16 inches of the soil surface.

The A horizon has hue of 10YR, value of 2 to 5, and

common. Reaction ranges from neutral to moderately alkaline.

Cahaba Series

The Cahaba series consists of well drained,

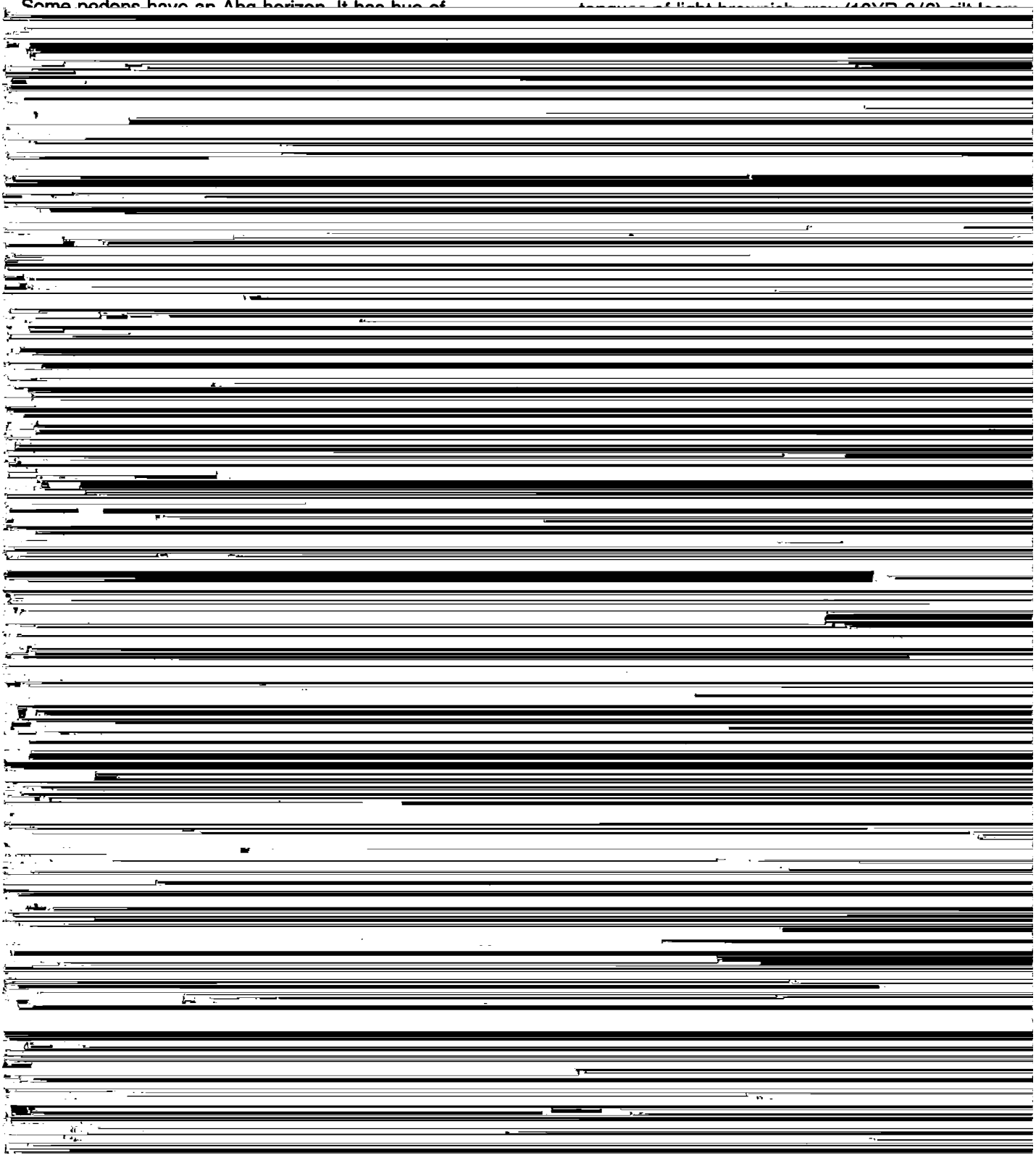
loam. In some pedons, the horizon is mottled in shades of yellow and brown. Some pedons have a CB horizon that has colors and textures similar to those of the BC horizon.

The C horizon ranges from yellowish brown to red and

ranges from 40 to 70 percent. Reaction ranges from neutral to moderately alkaline.

Some pedons have an Abg horizon. It has hue of

structure; friable; thin discontinuous clay films on vertical faces of peds; about 25 percent, by volume,



layers of organic material and are in positions on the landscape similar to those of Harahan soils.

Typical pedon of Harahan clay; 5 miles west of Madisonville, 1,000 feet east of St. Tammany-Tangipahoa Parish line, 600 feet north of Guste Island, sec. 31, T. 7 S., R. 10 E.

A—0 to 6 inches; very dark grayish brown (10YR 3/2) clay; weak fine subangular blocky structure; firm; few fine roots; strongly acid; clear smooth boundary.

Bw1—6 to 17 inches; grayish brown (10YR 5/2) clay; common medium distinct olive (5Y 5/6) mottles; weak medium subangular blocky structure; firm; patchy reddish brown stains on some ped faces; few wide cracks filled with silty clay loam materials; strongly acid; clear wavy boundary.

Bw2—17 to 21 inches; gray (5Y 5/1) clay; few medium distinct olive brown (2.5Y 5/6) mottles; weak medium subangular blocky structure; firm; few shiny pressure faces on surfaces of peds; strongly acid; clear wavy boundary.

Cg1—21 to 42 inches; gray (5Y 5/1) clay; massive; slightly fluid, flows with difficulty between fingers when squeezed leaving small residue in hand; few fragments of wood; mildly alkaline; clear smooth boundary.

Cg2—42 to 60 inches; greenish gray (5GY 5/1) clay; massive; slightly fluid, flows with difficulty between fingers when squeezed leaving medium residue in hand; few fragments of wood; mildly alkaline.

The solum is 20 to 40 inches thick. Depth to layers with n-values of more than 0.7 ranges from 20 to 40 inches.

The A horizon has hue of 10YR, value of 2 to 4, and chroma of 1 or 2, or it is neutral and has value of 2 to 4. It is 3 to 12 inches thick. Reaction ranges from strongly acid to neutral.

The Bw horizon has hue of 10YR, 2.5Y, 5Y, 5GY, or 5BG, value of 3 to 5, and chroma of 1 or 2, or it is

Kenner soils commonly are near Allemands, Barbary, Clovelly, Lafitte, and Maurepas soils. Allemands soils are in positions on the landscape similar to those of Kenner soil, and they have a clayey underlying material within a depth of 51 inches. Barbary and Maurepas soils are in nearby swamps. Barbary soils are clayey throughout, and Maurepas soils have logs and fragments of wood in the profile. Clovelly and Lafitte soils are in nearby marshes and are more saline throughout than Kenner soils.

Typical pedon of Kenner muck; 1.2 miles southwest of Madisonville, 0.3 mile north of lighthouse, 200 feet east of canal, Spanish Land Grant 37, T. 8 S., R. 10 E.

Oa—0 to 14 inches; very dark grayish brown (10YR 3/2) muck; about 25 percent fiber, 10 percent rubbed; massive; very fluid, flows easily between fingers when squeezed leaving a small residue in hand; about 40 percent mineral; mildly alkaline; clear smooth boundary.

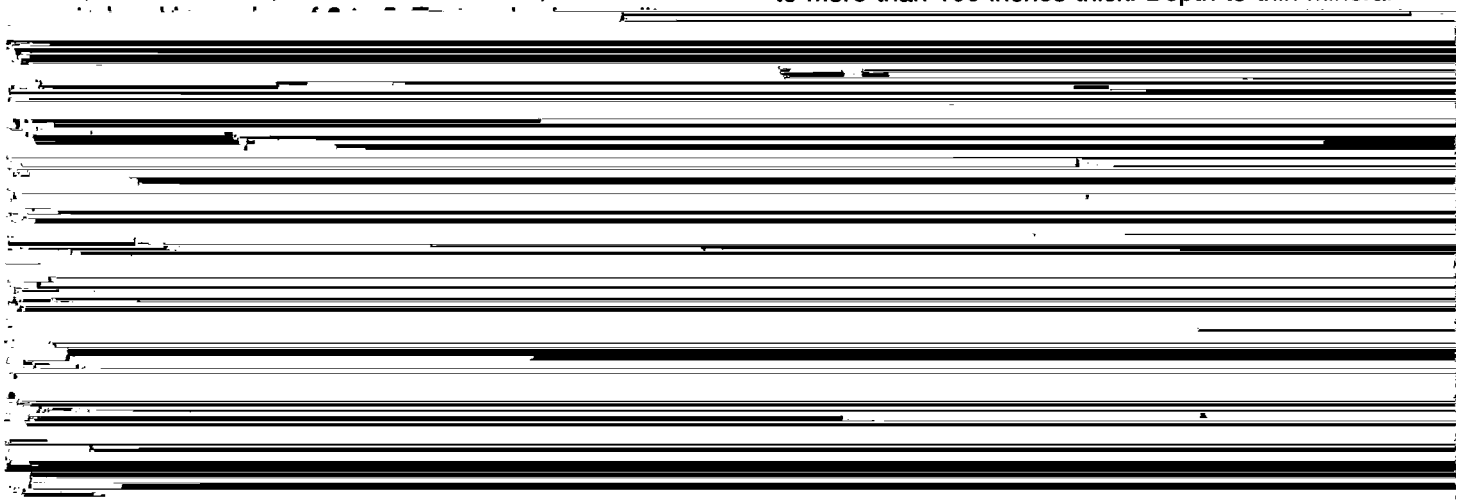
Cg—14 to 16 inches; dark gray (5Y 4/1) clay; massive; very fluid, flows easily between fingers when squeezed leaving hand empty; mildly alkaline; clear smooth boundary.

O'a—16 to 45 inches; black (10YR 2/1) muck; about 20 percent fiber, less than 5 percent rubbed; very fluid, flows easily between fingers when squeezed leaving hand empty; about 40 percent mineral; mildly alkaline; clear smooth boundary.

C'g—45 to 46 inches; gray (5Y 5/1) clay; massive; very fluid, flows easily between fingers when squeezed leaving hand empty; mildly alkaline; clear smooth boundary.

O''a—46 to 75 inches; very dark grayish brown (10YR 3/2) muck; about 40 percent fiber, 8 percent rubbed; massive; very fluid, flows easily between fingers when squeezed leaving small residue in hand; about 70 percent mineral; mildly alkaline.

The organic material that has thin mineral layers is 51 to more than 100 inches thick. Depth to thin mineral



Thickness of mineral strata (Cg horizons) within the subsurface and bottom tiers ranges from 1 centimeter to 25 centimeters. The Cg horizon has hue of 5Y, 5GY, or 10YR, value of 2 to 5, and chroma of 1. Texture is clay, silty clay, or mucky clay. Reaction ranges from medium acid to mildly alkaline.

Lafitte Series

The Lafitte series consists of very poorly drained, brackish organic soils. The soils are moderately rapidly permeable in the organic layers and very slowly permeable in the lower part. They formed in decomposed herbaceous plant material. These soils are in the brackish coastal marshes. They are ponded or flooded most of the time. Slope is less than 1 percent.

Soils of the Lafitte series are euic, thermic Typic Medisaprists.

Lafitte soils commonly are near Allemands, Clovelly, and Kenner soils. Allemands and Clovelly soils are in nearby marshes and have thinner organic layers overlying the mineral material. Kenner soils are in freshwater marshes and are not so saline as Lafitte soils.

Typical pedon of Lafitte muck; 1.5 miles south of Big Branch, 3.5 miles west of Lacombe, 400 feet northwest of Lake Pontchartrain shoreline in St. Tammany State Game Preserve, sec. 33, T. 8 S., R. 12 E.

Oa1—0 to 10 inches; dark gray (10YR 4/1) muck; about 20 percent fiber, 10 percent rubbed; massive; very fluid, flows easily between fingers when squeezed leaving small residue in hand; about 65 percent mineral; strata of black (10YR 2/1) clay about 2 centimeters thick on surface; mildly alkaline; clear smooth boundary.

Oa2—10 to 21 inches; very dark grayish brown (10YR 3/2) muck; about 40 percent fiber, 10 percent rubbed; massive; very fluid, flows easily between fingers when squeezed leaving hand empty; about 45 percent mineral; mildly alkaline; clear smooth boundary.

Oa3—21 to 38 inches; black (10YR 2/1) muck; about 20 percent fiber, less than 5 percent rubbed; massive; very fluid, flows easily between fingers when squeezed leaving hand empty; about 15 percent mineral; mildly alkaline; clear smooth boundary.

Cg—84 to 95 inches; very dark gray (5Y 3/1) mucky clay; massive; very fluid, flows easily between fingers when squeezed leaving hand empty; mildly alkaline.

Depth to mineral material ranges from 51 inches to more than 100 inches. Individual layers in the organic material can have a pH of less than 4.5 (in 0.01 molar calcium chloride), but at least some part of the organic material in the control section has a pH of more than 4.5 (in 0.01 molar calcium chloride) or more than 5.5 (in 1:1 water).

The Oa horizon has hue of 7.5YR or 10YR, value of 2 to 4, and chroma of 1 to 3. Fiber content after rubbing is typically less than 10 percent. The average conductivity of the saturation extract ranges from 4 to 8 millimhos per centimeter throughout the Oa horizon. The organic material in the surface tier (0 to 12 inches) ranges from neutral to moderately alkaline. Reaction of the organic material in the subsurface tier (12 to 36 inches) and the bottom tier (36 to 64 inches) ranges from slightly acid to moderately alkaline.

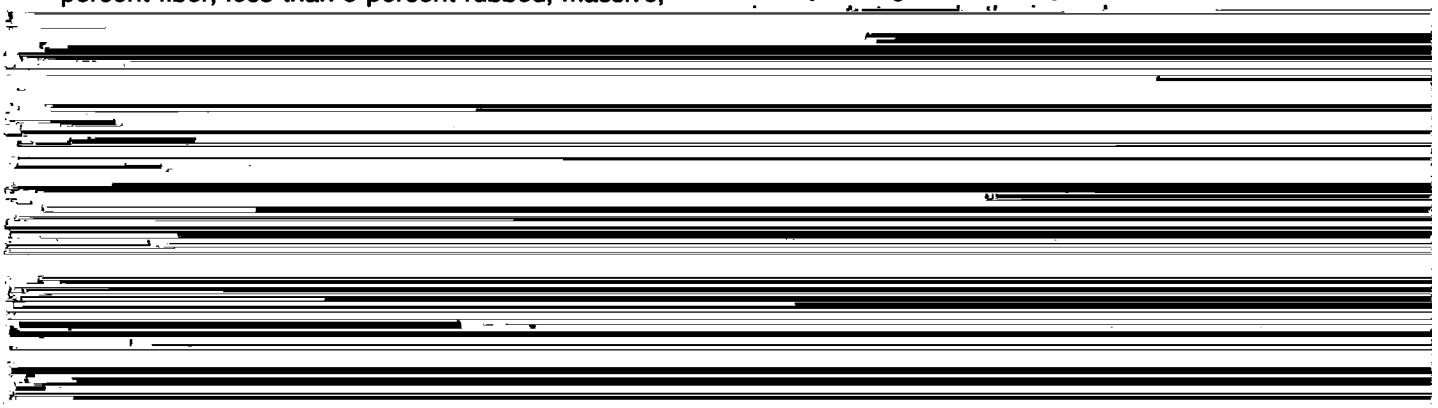
The Cg horizon has hue of 5Y or 5GY, value of 3 to 5, and chroma of 1. Texture is clay, silty clay, or silty clay loam. In some pedons, thin layers of organic material or thin layers of sandy loam are within the Cg horizon. Reaction ranges from neutral to moderately alkaline.

Larose Series

The Larose series consists of very poorly drained, very slowly permeable, very fluid mineral soils. These soils formed in clayey alluvium in freshwater marshes. They are ponded and flooded most of the time. Slope is less than 1 percent.

Soils of the Larose series are very-fine, montmorillonitic, nonacid, thermic Typic Hydraquents.

Larose soils commonly are near Allemands, Arat, Barbary, Clovelly, Kenner, and Lafitte soils. Allemands, Clovelly, Kenner, and Lafitte soils are in nearby marshes and are organic soils. Arat soils are in swamps and are loamy throughout. Barbary soils are in swamps and have



fingers when squeezed leaving hand empty; common fine roots; neutral; clear smooth boundary.
Cg1—11 to 32 inches; olive gray (5Y 4/2) clay; massive; very fluid, flows easily between fingers when squeezed leaving hand empty; neutral; gradual smooth boundary.
Cg2—32 to 64 inches; dark olive gray (5Y 3/2) clay; massive; very fluid, flows easily between fingers when squeezed leaving hand empty; few wood fragments; mildly alkaline.

All of the mineral horizons above a depth of 60 inches have an n-value of 1 or more. Reaction ranges from medium acid to mildly alkaline in the Oa horizon and from slightly acid to moderately alkaline in the A and Cg horizons.

The Oa horizon has hue of 7.5YR or 10YR, value of 2 or 3, and chroma of 1 or 2.

The A horizon has hue of 10YR, 2.5Y, or 5Y, value of 2 to 4, and chroma of 1 or 2, or it is neutral and has value of 2 to 4. Texture is clay, silty clay, or mucky clay.

The Cg horizon has hue of 10YR to 5BG, value of 3 to 5, and chroma of 1 or 2, or it is neutral and has value of 2 to 4. Texture is clay, silty clay, or mucky clay.

Latonia Series

The Latonia series consists of well drained, moderately rapidly permeable soils that formed in loamy and sandy marine and fluvial sediments. These soils are on terraces of late Pleistocene age. Slopes range from 0 to 1 percent.

Soils of the Latonia series are coarse-loamy, siliceous, thermic Typic Hapludults.

Bt—8 to 26 inches; yellowish brown (10YR 5/6) sandy loam; moderate medium subangular blocky structure; friable; common clay bridges between sand grains; strongly acid; gradual smooth boundary.
2C1—26 to 40 inches; yellowish brown (10YR 5/4) loamy sand; common medium faint brownish yellow (10YR 6/6) mottles; massive; friable; common pockets of clean sand grains; strongly acid; clear smooth boundary.
2C2—40 to 62 inches; white (10YR 8/1) sand; common medium faint light yellowish brown (10YR 6/4) mottles; massive; very friable; strongly acid.

The solum is 20 to 45 inches thick. The soil is very strongly acid or strongly acid except where lime has been added. The effective cation-exchange capacity is 50 percent or more saturated with exchangeable aluminum within a depth of 30 inches.

The A horizon has hue of 10YR, value of 3 to 5, and chroma of 1 to 3. It is 2 to 6 inches thick.

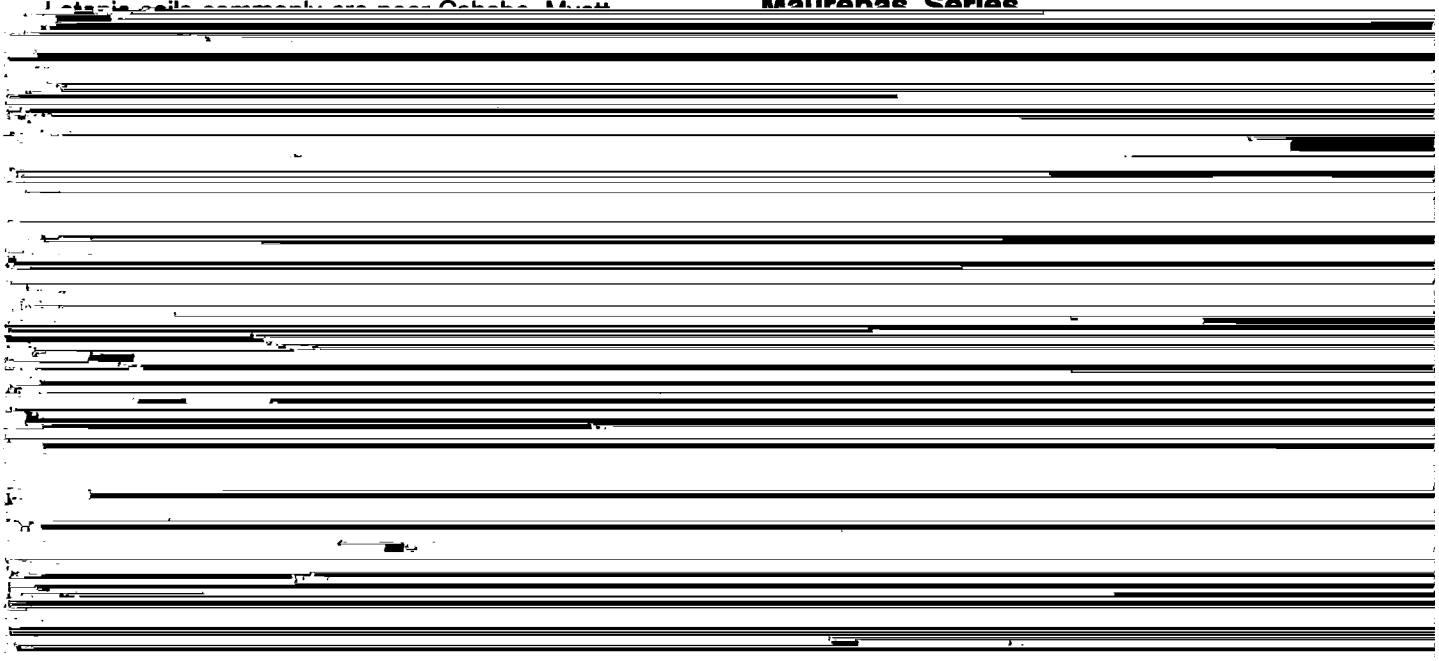
The BA horizon has hue of 10YR or 2.5Y, value of 4 or 5, and chroma of 3 to 6. Texture is sandy loam, fine sandy loam, or loam.

The Bt horizon has hue of 7.5YR or 10YR, value of 4 to 6, and chroma of 4 to 8. Texture is sandy loam, fine sandy loam, or loam. Clay content of the Bt horizon ranges from 10 to 16 percent, and silt content ranges from 20 to 35 percent.

Some pedons have a BC horizon. It has the same range in colors and textures as the Bt horizon.

The 2C horizon ranges from white to yellowish brown. Texture is loamy sand or sand.

Maurepas Series

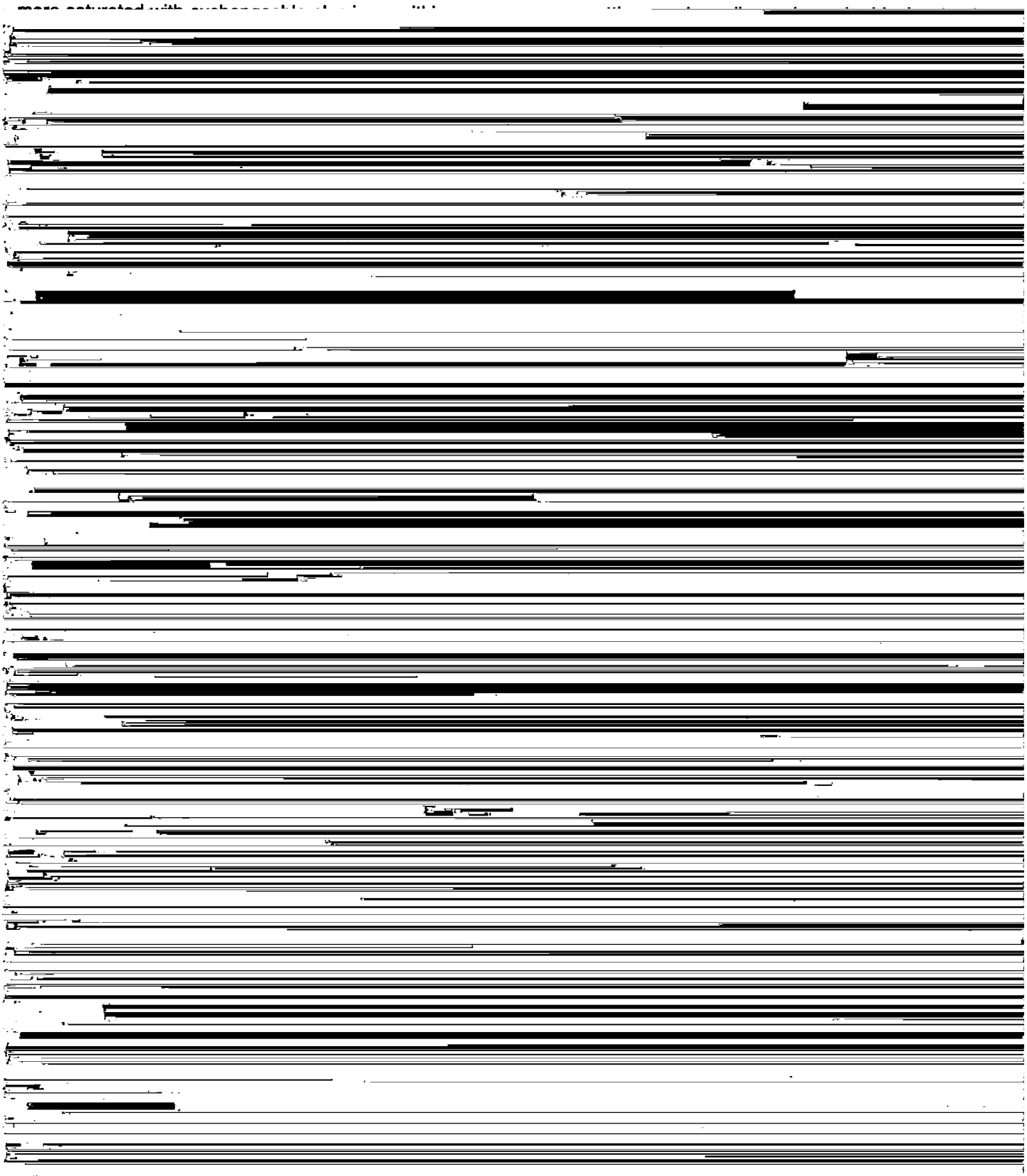


Oa1—0 to 10 inches; dark brown (7.5YR 3/2) muck; about 60 percent fiber, 15 percent rubbed; massive; very fluid, flows easily between fingers when squeezed leaving small residue in hand; about 35 percent mineral; neutral; clear smooth boundary.

Oa2—10 to 25 inches; black (10YR 2/1) muck; about 40 percent fiber, 10 percent rubbed; massive; very fluid, flows easily between fingers when squeezed leaving

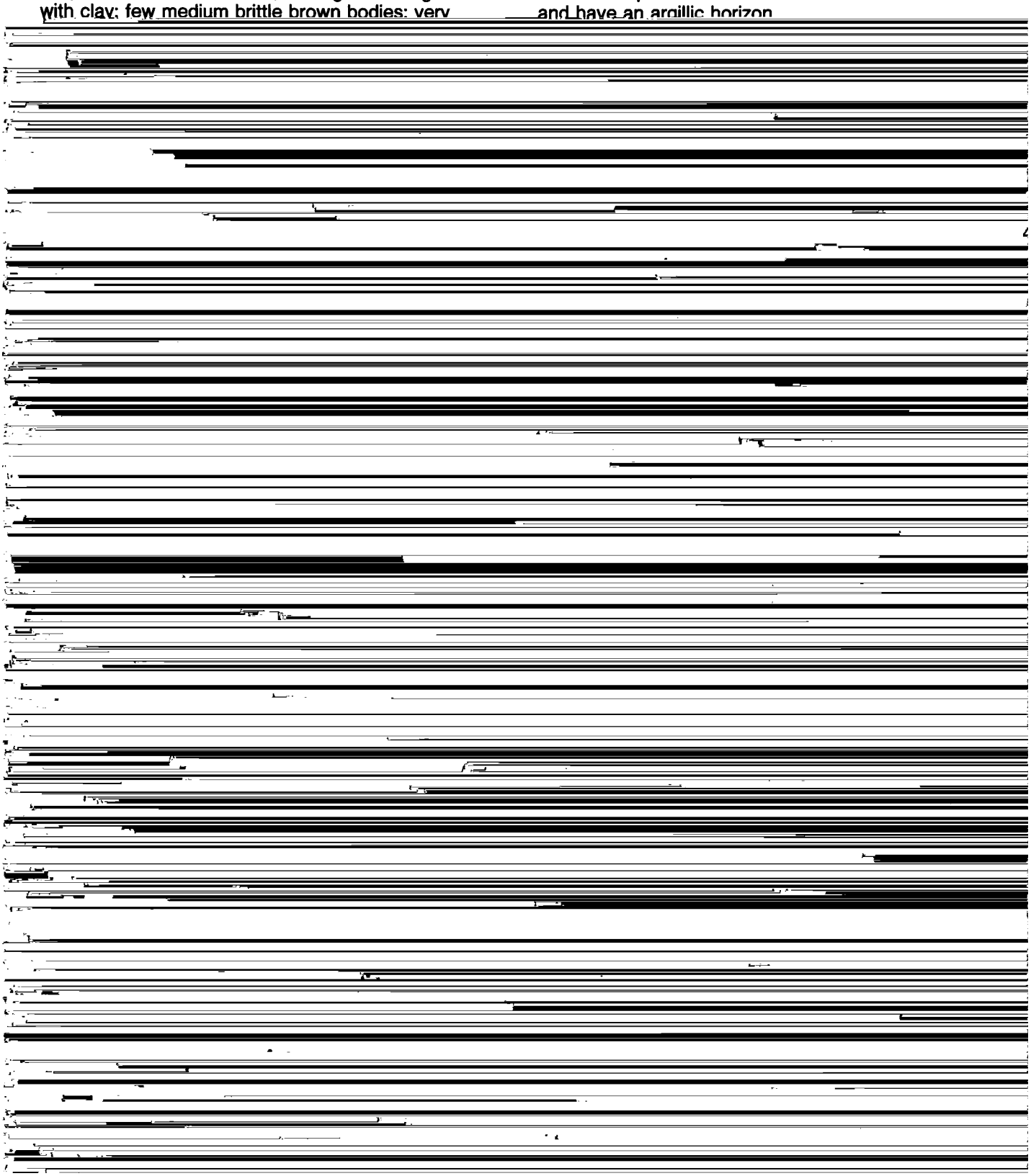
Soils of the Myatt series are fine-loamy, siliceous, thermic Typic Ochraquults.

Myatt soils commonly are near Brimstone, Cahaba, Guyton, Prentiss, and Stough soils. Brimstone soils are poorly drained. They are in positions on the landscape similar to those of Myatt soils and they have a high content of sodium in the subsoil. Cahaba soils are in higher positions than Myatt soils and are redder



5/8) mottles; few fine roots; sand grains bridged with clay; few medium brittle brown bodies; very

soils are in positions similar to those of Rosebloom soils and have an argillic horizon



Smithdale soils are on steeper side slopes and do not have a solum with a bisequum.

Typical pedon of Ruston fine sandy loam, 3 to 6 percent slopes; 1.8 miles northwest of Lee Road, 2,200 feet north of Pat O'Brien Road, 2,800 feet east of Highway 40, 185 feet east of a fence row, NE1/4NW1/4 sec. 25, T. 5 S., R. 11 E.

Ap—0 to 6 inches; dark yellowish brown (10YR 4/4) fine sandy loam; weak fine granular structure; very friable; common fine roots; strongly acid; clear smooth boundary.

E—6 to 17 inches; brown (10YR 5/3) fine sandy loam; few medium prominent red (2.5YR 4/6) mottles; weak medium subangular blocky structure; friable; few fine pores; strongly acid; gradual wavy boundary.

Bt1—17 to 23 inches; red (2.5YR 4/8) sandy clay loam; moderate medium subangular blocky structure; firm; few fine and medium roots; thin discontinuous clay films on faces of peds; strongly acid; gradual smooth boundary.

Bt2—23 to 38 inches; yellowish red (5YR 5/8) sandy clay loam; moderate medium subangular blocky structure; firm; thin discontinuous clay films on faces of peds; strongly acid; clear wavy boundary.

B/E—38 to 44 inches; red (2.5YR 4/8) sandy clay loam; moderate medium subangular blocky structure; firm; pockets of yellowish brown (10YR 5/4) sandy loam E material throughout horizon; thin patchy clay films on faces of some peds; strongly acid; gradual wavy boundary.

Bt—44 to 64 inches; red (2.5YR 4/8) sandy clay loam; many medium prominent yellowish brown (10YR 5/4) mottles; moderate medium subangular blocky structure; firm; thin discontinuous clay films on faces of peds; few small pockets of clean sand grains; few fine pores; strongly acid.

The solum is more than 60 inches thick. Reaction ranges from very strongly acid to medium acid except where lime has been added. The effective cation-exchange capacity of this soil is 20 to 50 percent saturated with exchangeable aluminum within a depth of 30 inches.

The A horizon has hue of 10YR or 7.5YR, value of 4 to 6, and chroma of 2 to 4. It is 3 to 6 inches thick.

The E horizon and the E part of the B/E horizon have hue of 10YR or 7.5YR, value of 5 or 6, and chroma of 3 or 4. Texture is fine sandy loam or sandy loam.

The Bt horizon has hue of 5YR or 2.5YR, value of 4 to 6, and chroma of 4 to 8. Texture is sandy clay loam, fine sandy loam, loam, or clay loam.

Savannah Series

The Savannah series consists of moderately well drained soils that have a fragipan. These soils formed in unconsolidated loamy sediment. They are on the terrace uplands. Slopes range from 1 to 6 percent.

Soils of the Savannah series are fine-loamy, siliceous, thermic Typic Fragiudults.

Savannah soils commonly are near Ruston and Smithdale soils, but unlike Savannah soils, these soils do not have a fragipan. Ruston soils are in positions on the landscape similar to those of Savannah soils. Smithdale soils are on steeper side slopes.

Typical pedon of Savannah fine sandy loam, 1 to 3 percent slopes; 4 miles northwest of Talisheek, 4 miles southwest of Bush, 3 miles north of Highway 435, 2.5 miles south of Highway 21, 110 feet east of Moneyhill Plantation Road, 15 feet north of section line, SE1/4SE1/4 sec. 36, T. 5 S., R. 12 E.

Ap—0 to 6 inches; dark grayish brown (10YR 4/2) fine sandy loam; weak fine granular structure; friable; few fine roots; very strongly acid; clear smooth boundary.

E—6 to 10 inches; brown (10YR 5/3) fine sandy loam; weak fine subangular blocky structure; friable; few fine roots; few fine pores; very strongly acid; clear wavy boundary.

Bt1—10 to 20 inches; yellowish brown (10YR 5/6) loam; moderate medium subangular blocky structure; firm; thin patchy clay films on faces of peds; few fine reddish brown concretions; very strongly acid; clear wavy boundary.

Bt2—20 to 29 inches; yellowish brown (10YR 5/6) clay loam; few medium faint yellowish brown (10YR 5/4) mottles and few medium prominent red (2.5YR 4/6) mottles; moderate medium subangular blocky structure; firm; thin discontinuous clay films on faces of peds; strongly acid; gradual wavy boundary.

Btx1—29 to 41 inches; mottled yellowish brown (10YR 5/6), pale brown (10YR 6/2), brownish yellow (10YR 6/6), and red (2.5YR 4/6) clay loam; moderate medium subangular blocky structure; firm and brittle; thin discontinuous clay films on faces of peds; few medium reddish brown concretions; strongly acid; clear wavy boundary.

Btx2—41 to 62 inches; mottled yellowish brown (10YR 5/6), pale brown (10YR 6/2), strong brown (7.5YR 5/6), and red (2.5YR 4/8) clay loam; weak coarse prismatic structure parting to weak medium subangular blocky; firm and brittle; thin patchy clay films on faces of peds; strongly acid.

The solum is more than 60 inches thick. Depth to the fragipan ranges from 16 to 38 inches. Reaction ranges from extremely acid to strongly acid. The effective cation-exchange capacity of this soil is 50 percent or

The A and E horizons have hue of 10YR, value of 4 to 6, and chroma of 2 or 3. The A horizon ranges in thickness from 5 to 8 inches.

The Bt horizon has hue of 10YR or 7.5YR, value of 5, and chroma of 6 to 8. Mottles of gray and red are common below a depth of 30 inches. Texture is loam, clay loam, or sandy clay loam.

The Btx horizon is mottled in shades of red, brown, yellow, or gray. Texture is sandy clay loam, clay loam, or loam.

Smithdale Series

The Smithdale series consists of well drained, moderately permeable soils that formed in loamy marine or stream sediment. These soils are on the terrace uplands. Slopes range from 8 to 12 percent.

Soils of the Smithdale series are fine-loamy, siliceous, thermic Typic Hapludults.

Smithdale soils are similar to Cahaba soils and commonly are near Ruston and Savannah soils. Cahaba soils are on stream terraces at a lower elevation and they have a solum less than 60 inches thick. Ruston soils are well drained, and Savannah soils are moderately well drained. These soils are in less sloping areas. Ruston soils have a solum with a bisequum. Savannah soils have a fragipan.

Typical pedon of Smithdale fine sandy loam, 8 to 12 percent slopes, 2.5 miles east of Folsom, 0.8 mile north of Highway 40, 20 feet east of Beason Road, SW1/4SW1/4 sec. 6, T. 5 S., R. 11 E.

A—0 to 4 inches; very dark gray (10YR 3/1) fine sandy loam; weak fine granular structure; very friable; common fine roots; strongly acid; clear smooth boundary.

E—4 to 10 inches; yellowish brown (10YR 5/4) sandy loam; weak fine granular structure; friable; few fine roots; strongly acid; clear smooth boundary.

Bt1—10 to 31 inches; red (2.5YR 4/8) sandy clay loam; moderate medium subangular blocky structure; firm; thin discontinuous clay films on faces of peds; strongly acid; clear wavy boundary.

Bt2—31 to 45 inches; red (2.5YR 4/8) sandy clay loam; common medium prominent light yellowish brown (10YR 6/4) mottles; moderate medium subangular blocky structure; firm; thin discontinuous clay films on faces of peds; dark stains on some faces of peds; strongly acid; clear wavy boundary.

Bt3—45 to 62 inches; red (2.5YR 4/8) sandy loam; moderate medium subangular blocky structure; firm; thin patchy clay films on faces of peds; few pockets and streaks of light yellowish brown sand; strongly acid.

The solum is more than 60 inches thick. All horizons are very strongly acid or strongly acid except where lime has been added. The effective cation-exchange capacity of this soil is 20 to 50 percent saturated with exchangeable aluminum within a depth of 30 inches.

The A horizon has hue of 10YR, value of 3 or 4, and chroma of 1 to 3. It is 3 to 10 inches thick.

The E horizon has hue of 10YR, value of 5 or 6, and chroma of 2 to 4. Texture is fine sandy loam, sandy loam, or loamy sand.

The upper part of the Bt horizon has hue of 5YR or 2.5YR, value of 4 or 5, and chroma of 6 to 8. Few or common mottles in shades of red and brown are in some pedons. Texture is clay loam, sandy clay loam, or loam. The lower part of the Bt horizon has colors similar to the upper part of the Bt horizon except that it commonly has few to many pockets of yellowish brown or pale brown sand. Texture is loam or sandy loam.

Stough Series

The Stough series consists of somewhat poorly drained, moderately slowly permeable soils that formed in loamy marine and fluvial sediments. These soils are on terraces of late Pleistocene age. Slopes are less than 1 percent.

Soils of the Stough series are coarse-loamy, siliceous, thermic Fragiaquic Paleudults.

Stough soils commonly are near Brimstone, Cahaba, Guyton, Myatt, and Prentiss soils. Brimstone soils are in slightly lower positions on the landscape than Stough soils and have a high content of sodium in the subsoil. Cahaba soils are on side slopes and low ridges and are reddish throughout. Guyton and Myatt soils are in level to depressional areas and are grayish throughout. Prentiss soils are in slightly higher or more sloping positions and have a fragipan.

Typical pedon of Stough fine sandy loam; 2.5 miles east of St. Tammany, 1.8 miles west of Florenville, 1 mile south of Highway 36, 300 feet east of Liberty Bayou, 30 feet south of timber company road, NE1/4SW1/4 sec. 26, T. 7 S., R. 13 E.

A—0 to 5 inches; dark gray (10YR 4/1) fine sandy loam; weak fine granular structure; friable; common fine and medium roots; very strongly acid; clear wavy boundary.

BE—5 to 12 inches; mottled pale brown (10YR 6/3), light yellowish brown (10YR 6/4), and gray (10YR 5/1) loam; weak medium subangular blocky structure; friable; few medium roots; very strongly acid; clear wavy boundary.

Bt1—12 to 24 inches; mottled light yellowish brown (10YR 6/4), pale brown (10YR 6/3), and light brownish gray (10YR 6/2) loam; weak medium subangular blocky structure; friable; thin patchy clay films on faces of peds; few root channels and crawfish holes filled with gray (10YR 5/1) fine sandy loam; few fine and medium brown and black concretions; strongly acid; gradual wavy boundary.

Bt2—24 to 37 inches; mottled light yellowish brown (10YR 6/4), light brownish gray (10YR 6/2), and strong brown (7.5YR 5/6) loam; weak coarse prismatic structure parting to weak medium subangular blocky; firm; brown part is slightly brittle; thin discontinuous clay films on faces of peds; few medium and fine reddish brown and black concretions; strongly acid; gradual wavy boundary.

Bt3—37 to 60 inches; mottled light yellowish brown (10YR 6/4), yellowish brown (10YR 5/6), and light brownish gray (10YR 6/2) loam; weak coarse subangular blocky structure; friable; thin patchy clay films on vertical faces of peds; strongly acid.

The solum is more than 60 inches thick. Reaction is very strongly acid or strongly acid except where lime has been added. The effective cation-exchange capacity of this soil is 50 percent or more saturated with exchangeable aluminum within a depth of 30 inches.

The A horizon has hue of 10YR, value of 3 or 4, and chroma of 1 or 2. It is 3 to 6 inches thick.

Some pedons have Ap or E horizons that have hue of 10YR or 2.5Y, value of 4 to 6, and chroma of 2 to 4.

The BE horizon is mottled in shades of brown. Texture is sandy loam, fine sandy loam, or loam. Some pedons do not have a BE horizon.

The Bt horizon has hue of 10YR or 2.5Y, value of 5 or 6, and chroma of 4 to 6, or it is mottled in shades of brown and gray. The upper 10 inches of the Bt horizon has mottles with chroma of 2 or less. The lower part of the Bt horizon is compact and brittle in the brown part. Clay content in the upper 20 inches of the Bt horizon is less than 18 percent. Texture is fine sandy loam, loam, sandy loam, or sandy clay loam.

Formation of the Soils

Dr. Brian A. Schumacher, Department of Agronomy, Agricultural Experiment Station, Louisiana State University Agricultural Center, prepared this section.

This section discusses the processes of soil formation and relates them to the soils in the survey area.

Processes of Soil Formation

The processes of soil formation influence the kind and degree of development of soil horizons *(9)*. The factors of soil formation—climate, living organisms, relief, parent material, and time—determine the rate and relative effectiveness of different processes.

Soil-forming processes include those that result in the sediment provides new parent material for soil formation. The soils that are classified as Entisols, such as the Arat and Larose soils, undergo periodic additions of new sediments, as do the Ouachita soils, an Inceptisol, and the Kenner soils, a Histosol. During periods between flooding, the processes of soil formation are limited. Often, new material accumulates faster than the processes of soil formation can appreciably alter the deposited materials *(19, 20)*. This accumulation is evident as depositional strata in the lower horizons of many of the soils, such as the Bibb soils, that are developing in alluvial sediment. Floodwater and rainwater also carry dissolved mineral matter and gases, which are added to the soil as the water percolates through the

translocation of materials in solution from deeper horizons during fluctuations of water table levels, and

Two physical transformations which have occurred in the soils of St. Tammany Parish are the formation of soil

more highly developed a soil will become unless some other soil forming factor plays a more dominant role.

In this parish, the warm average temperatures and large amounts of precipitation favor rapid weathering of readily weatherable minerals in the soils. In spite of this, soils developing on flood plains, such as the Arkabutla and Bibb soils, are weakly developed because new sediment is continually being added to the soil surface and because the length of time the soils are exposed to influences of climate is short. Advanced weathering and leaching are typically indicated by acid soils with low base saturations, such as the Cahaba, Ruston, and Smithdale soils. Weathering of iron-bearing minerals releases iron into the soil. If reducing conditions are prevalent, iron will be reduced, resulting in predominantly

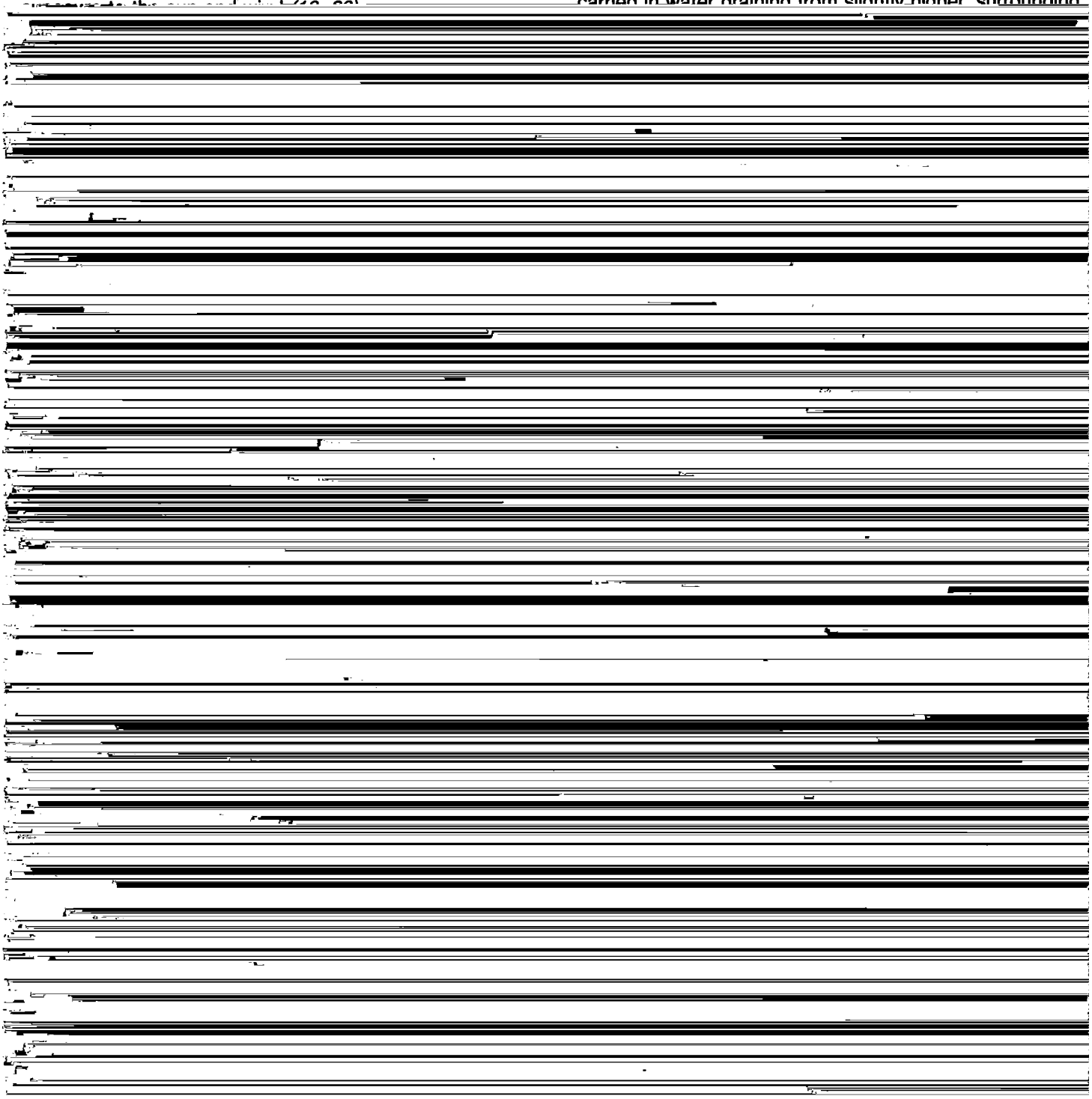
produces additional organic matter. Growth of plants and their eventual decomposition provide recycling of nutrients from the soil. Decomposition serves as a major source of organic residue. This continual cycling of nutrients helps stem the loss of calcium, magnesium, sodium, potassium, and other essential elements from the soil system through leaching or erosional processes.

Arat and Barbary soils formed primarily under a native vegetation consisting of various swamp grasses, baldcypress, red maple, and water tupelo. Arkabutla, Harahan, and Rosebloom soils formed under mixed hardwood vegetation. A mixed pine forest is the dominant vegetation for the Latonia and Smithdale soils. Larose soils are commonly formed under freshwater

Relief

Relief and other physiographic features influence the soil formation processes by affecting internal soil drainage, surface runoff, erosion and deposition, and

The formation of the Brimstone soils has a unique relationship to relief. The Brimstone soils are on broad flats at an intermediate elevation. These soils have a high content of exchangeable sodium, believed to be carried in water draining from slightly higher, surrounding



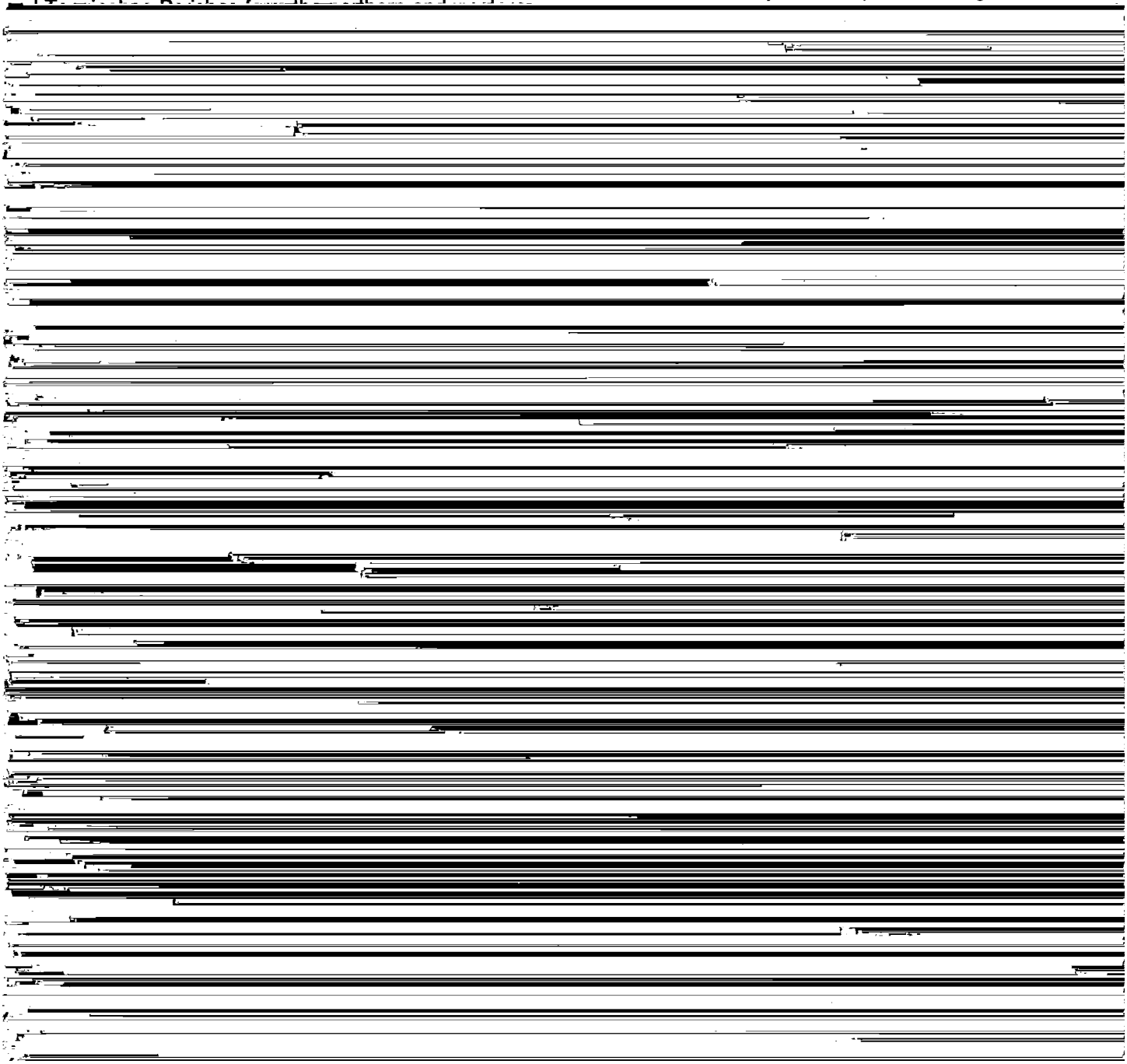
Landforms and Surface Geology

Dr. Bobby J. Miller, Department of Agronomy, Agricultural Experiment Station, Louisiana State University Agricultural Center, prepared this section.

St. Tammany Parish occupies an area of approximately 880 square miles in southeastern Louisiana. The Pearl River forms its eastern boundary with the State of Mississippi. Lake Pontchartrain and Lake Borgne form the southern boundary. Washington

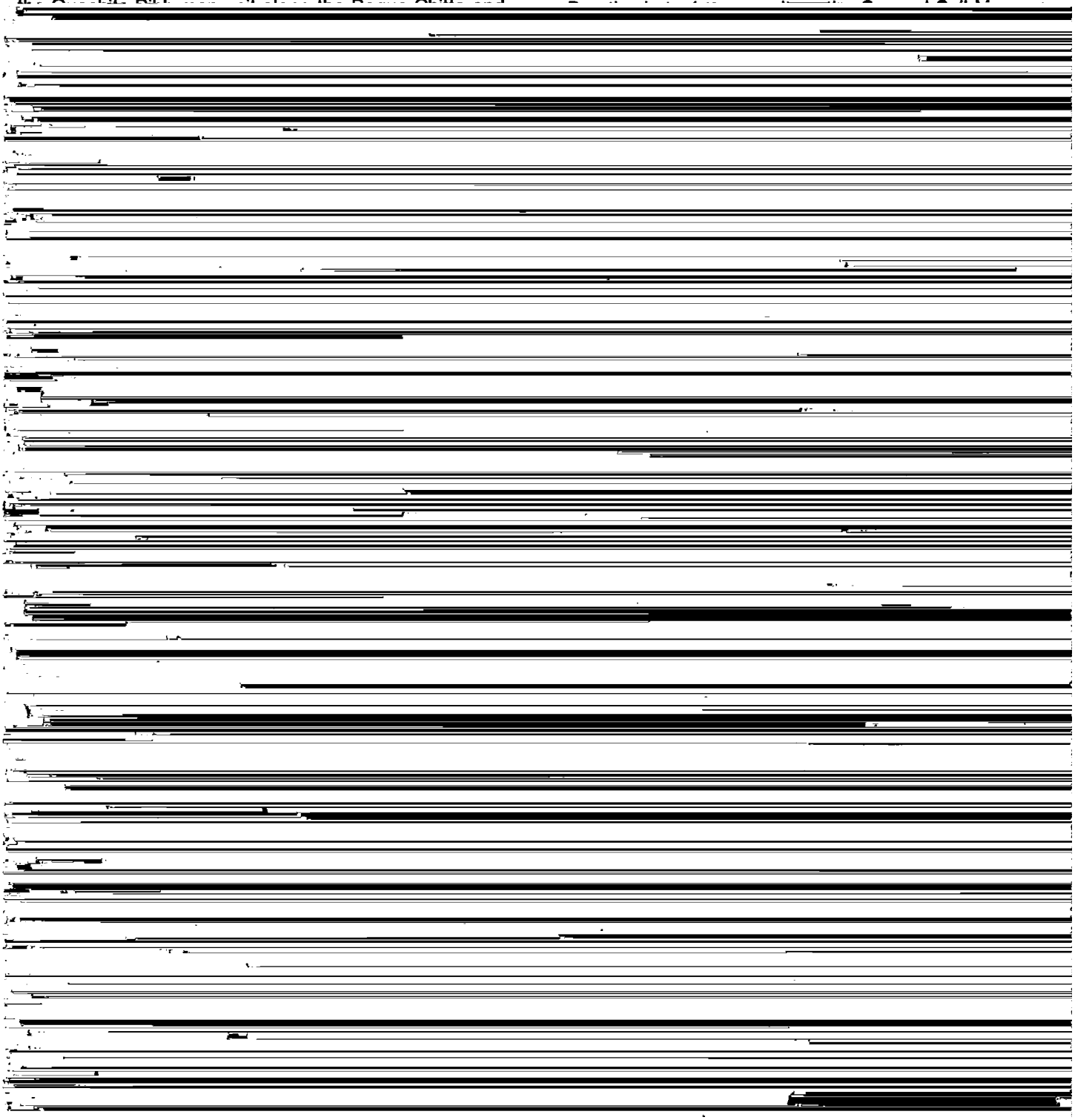
old), and most have been deposited since the formation of the Lake Pontchartrain Basin. The Lake Pontchartrain Basin was formed by embayment of the Gulf of Mexico when the Mississippi River and its distributaries changed courses and abandoned the Cocodrie and St. Bernard deltas 4,000 to 1,800 years ago *(25)*.

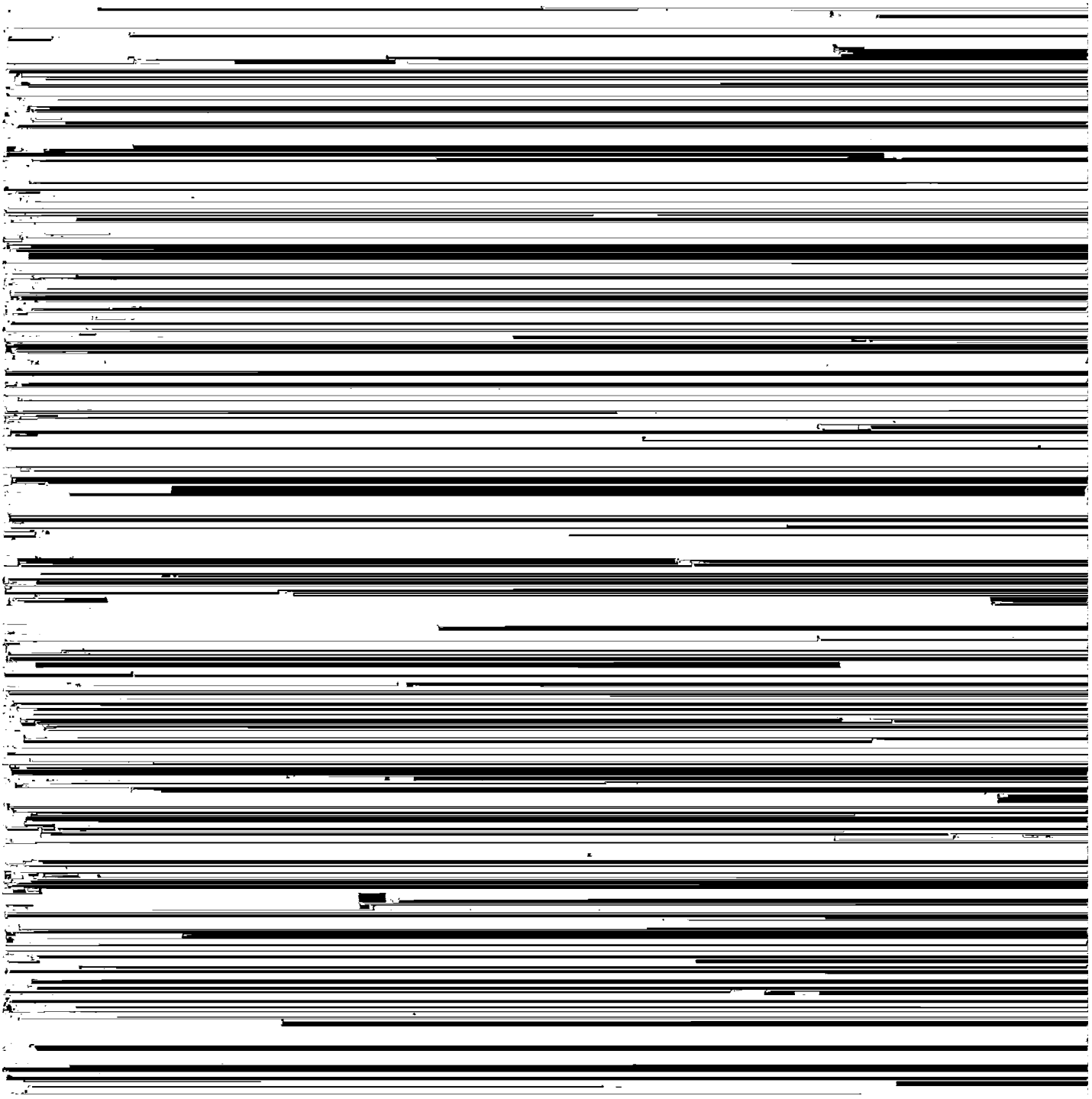
Elevations in the coastal marshes and swamps range from a few feet below sea level to only a few feet above sea level. Parts of these areas are continuously flooded, and the rest are subject to frequent flooding. Exceptions



stream channels that are partly filled with sediment. The Pearl River flood plain is the largest contiguous area of these deposits and corresponds approximately to the Arkabutla-Rosebloom map unit on the General Soil Map. Other alluvial plain deposits correspond approximately to

youngest of the Pleistocene age terraces in the area and probably was deposited 20,000 to 25,000 years ago. Stratigraphically, the Deweyville Terrace lies between the Prairie Terrace and the Holocene flood plains. The major areas of the Deweyville Terrace are in the Cahaba-





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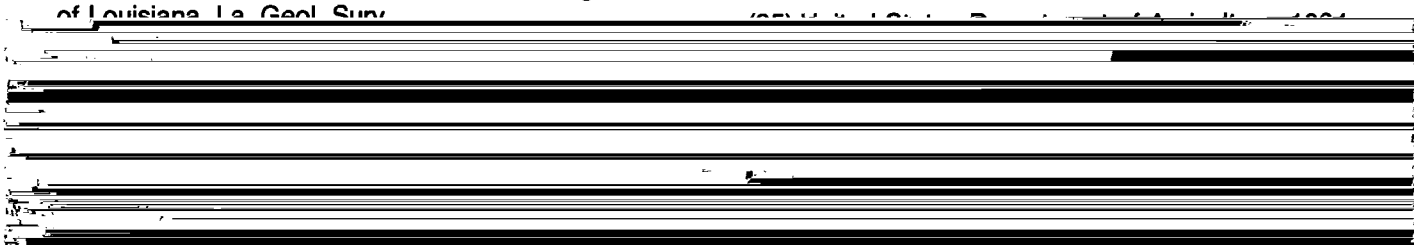


Glossary

Aeration, soil. The exchange of air in soil with air from the atmosphere. The air in a well-aerated soil is similar to that in the atmosphere; the air in a poorly

along the upper side. It may be nearly level or have a grade toward one or both ends.

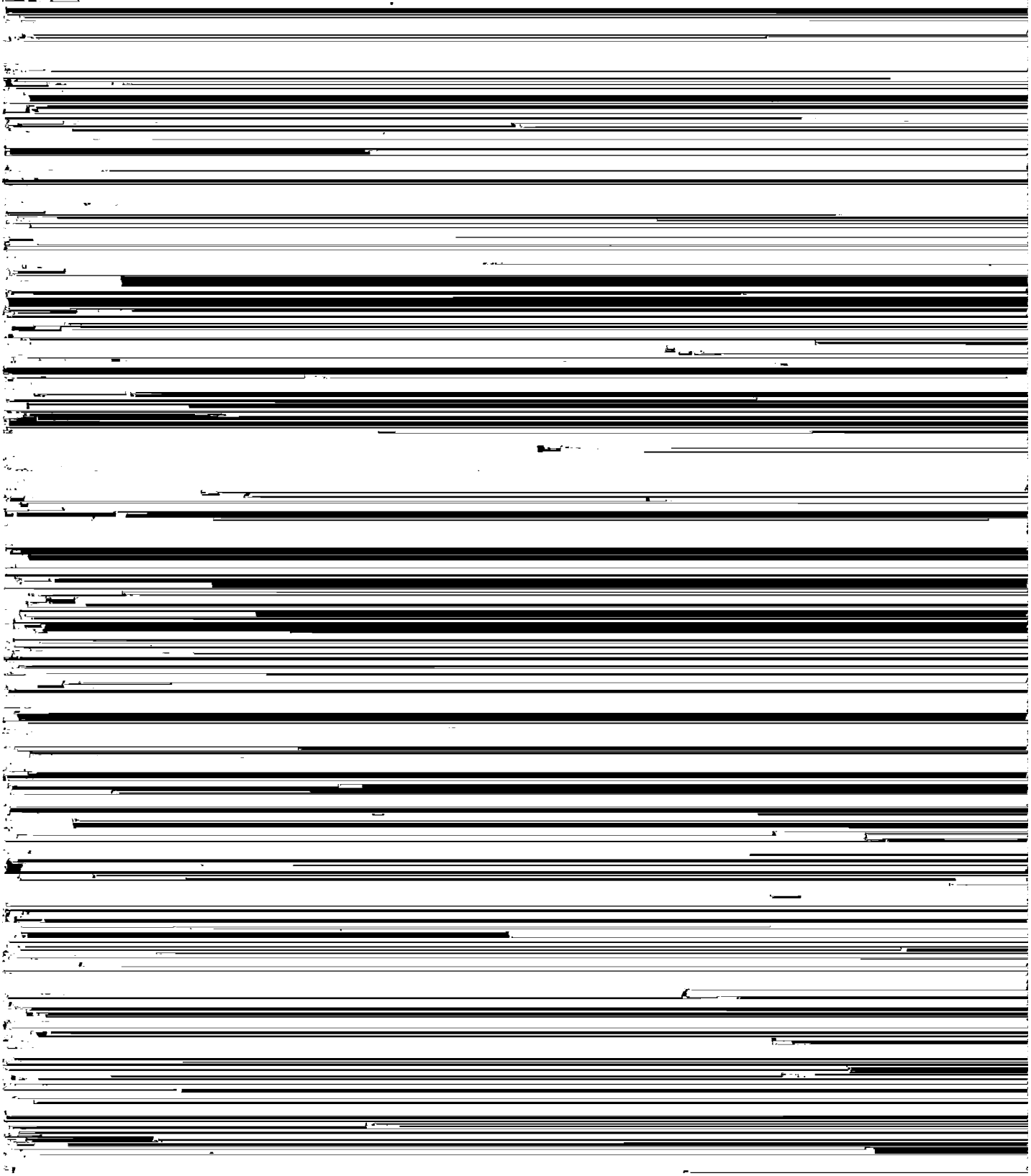
Cation. An ion carrying a positive charge of electricity

Consistence, soil. The feel of the soil and the ease with which a lump can be crushed by the fingers. Terms commonly used to describe consistence are—
Loose.—Noncoherent when dry or moist; does not hold together in a mass.
Friable.—When moist, crushes easily under gentle pressure between thumb and forefinger and can be pressed together into a lump.
Firm.—When moist, crushes under moderate pressure between thumb and forefinger, but resistance is distinctly noticeable.
Plastic.—When wet, readily deformed by moderate pressure but can be pressed into a lump; will form a

Excessively drained.—Water is removed from the soil very rapidly. Excessively drained soils are commonly very coarse textured, rocky, or shallow. Some are steep. All are free of the mottling related to wetness.
Somewhat excessively drained.—Water is removed from the soil rapidly. Many somewhat excessively drained soils are sandy and rapidly pervious. Some are shallow. Some are so steep that much of the water they receive is lost as runoff. All are free of the mottling related to wetness.
Well drained.—Water is removed from the soil readily, but not rapidly. It is available to plants

Drainage, surface. Runoff, or surface flow of water.

Gleyed soil. Soil that formed under poor drainage.



combination of these. The combined A and B horizons are generally called the solum, or true soil. If a soil does not have a B horizon, the A horizon alone is the solum.

C horizon.—The mineral horizon or layer, excluding indurated bedrock, that is little affected by soil-forming processes and does not have the properties typical of the A or B horizon. The material of a C horizon may be either like or unlike that in which the solum formed. If the material is known to differ from that in the solum, the Arabic numeral 2 precedes the letter C.

R layer.—Consolidated rock (unweathered bedrock) beneath the soil. The rock commonly underlies a C horizon, but can be directly below an A or a B horizon.

0.75 to 1.25	moderate
1.25 to 1.75	moderately high
1.75 to 2.5	high
More than 2.5	very high

Irrigation. Application of water to soils to assist in production of crops. Methods of irrigation are—

Border.—Water is applied at the upper end of a strip in which the lateral flow of water is controlled by small earth ridges called border dikes, or borders.

Basin.—Water is applied rapidly to nearly level plains surrounded by levees or dikes.

Controlled flooding.—Water is released at intervals from closely spaced field ditches and distributed uniformly over the field.

Corrugation.—Water is applied to small, closely spaced furrows or ditches in fields of close-growing

thickness and arrangement of those horizons in the soil profile.

Mottling, soil. Irregular spots of different colors that vary in number and size. Mottling generally indicates poor aeration and impeded drainage. Descriptive terms are as follows: abundance—*few, common,* and *many*; size—*fine, medium,* and *coarse*; and

Slow	0.06 to 0.2 inch
Moderately slow	0.2 to 0.6 inch
Moderate	0.6 inch to 2.0 inches
Moderately rapid	2.0 to 6.0 inches
Rapid	6.0 to 20 inches
Very rapid	more than 20 inches

Phase, soil. A subdivision of a soil series based on

Runoff. The precipitation discharged into stream channels from an area. The water that flows off the surface of the land without sinking into the soil is called surface runoff. Water that enters the soil before reaching surface streams is called ground-water runoff or seepage flow from ground water.

Saline soil. A soil containing soluble salts in an amount that impairs the growth of plants. A saline soil does not contain excess exchangeable sodium.

Sand. As a soil separate, individual rock or mineral fragments from 0.05 millimeter to 2.0 millimeters in

Slope (in tables). Slope is great enough that special practices are required to ensure satisfactory performance of the soil for a specific use.

Slow intake (in tables). The slow movement of water into the soil.

Sodicity. The degree to which a soil is affected by exchangeable sodium. Sodicity is expressed as a sodium absorption ratio (SAR) of a saturation extract, or the ratio of Na^{+} to $Ca^{++} + Mg^{++}$. The degrees of sodicity are—

SAR

preparation of a seedbed for the next crop, and during the early growing period of the new crop.

Subsoil. Technically, the B horizon; roughly, the part of the solum below plow depth.

Subsoiling. Breaking up a compact subsoil by pulling a special chisel through the soil.

Substratum. The part of the soil below the solum.

Subsurface layer. Technically, the A2 horizon. Generally refers to a leached horizon lighter in color and lower in organic matter content than the overlying surface layer.

Surface layer. The soil ordinarily moved in tillage, or its equivalent in uncultivated soil, ranging in depth from 4 to 10 inches (10 to 25 centimeters). Frequently designated as the "plow layer," or the "Ap horizon."

Taxadjuncts. Soils that cannot be classified in a series recognized in the classification system. Such soils are named for a series they strongly resemble and are designated as taxadjuncts to that series because they differ in ways too small to be of consequence in interpreting their use and behavior.

Terrace. An embankment, or ridge, constructed on the contour or at a slight angle to the contour across sloping soils. The terrace intercepts surface runoff, so that water soaks into the soil or flows slowly to a prepared outlet.

Terrace (geologic). An old alluvial plain, ordinarily flat or undulating, bordering a river, a lake, or the sea.

Texture, soil. The relative proportions of sand, silt, and clay particles in a mass of soil. The basic textural classes, in order of increasing proportion of fine particles, are *sand, loamy sand, sandy loam, loam, silt loam, silt, sandy clay loam, clay loam, silty clay loam, sandy clay, silty clay,* and *clay*. The sand, loamy sand, and sandy loam classes may be further divided by specifying "coarse," "fine," or "very fine."

Thin layer (in tables). An otherwise suitable soil material that is too thin for the specified use.

Tilth, soil. The physical condition of the soil as related to tillage, seedbed preparation, seedling emergence, and root penetration.

Topsoil. The upper part of the soil, which is the most favorable material for plant growth. It is ordinarily rich in organic matter and is used to topdress roadbanks, lawns, and land affected by mining.

Upland (geology). Land at a higher elevation, in general, than the alluvial plain or stream terrace; land above the lowlands along streams.

Weathering. All physical and chemical changes produced by atmospheric agents in rocks or other deposits at or near the earth's surface. These changes result in disintegration and decomposition of the material.

Tables

TABLE 1.--TEMPERATURE AND PRECIPITATION

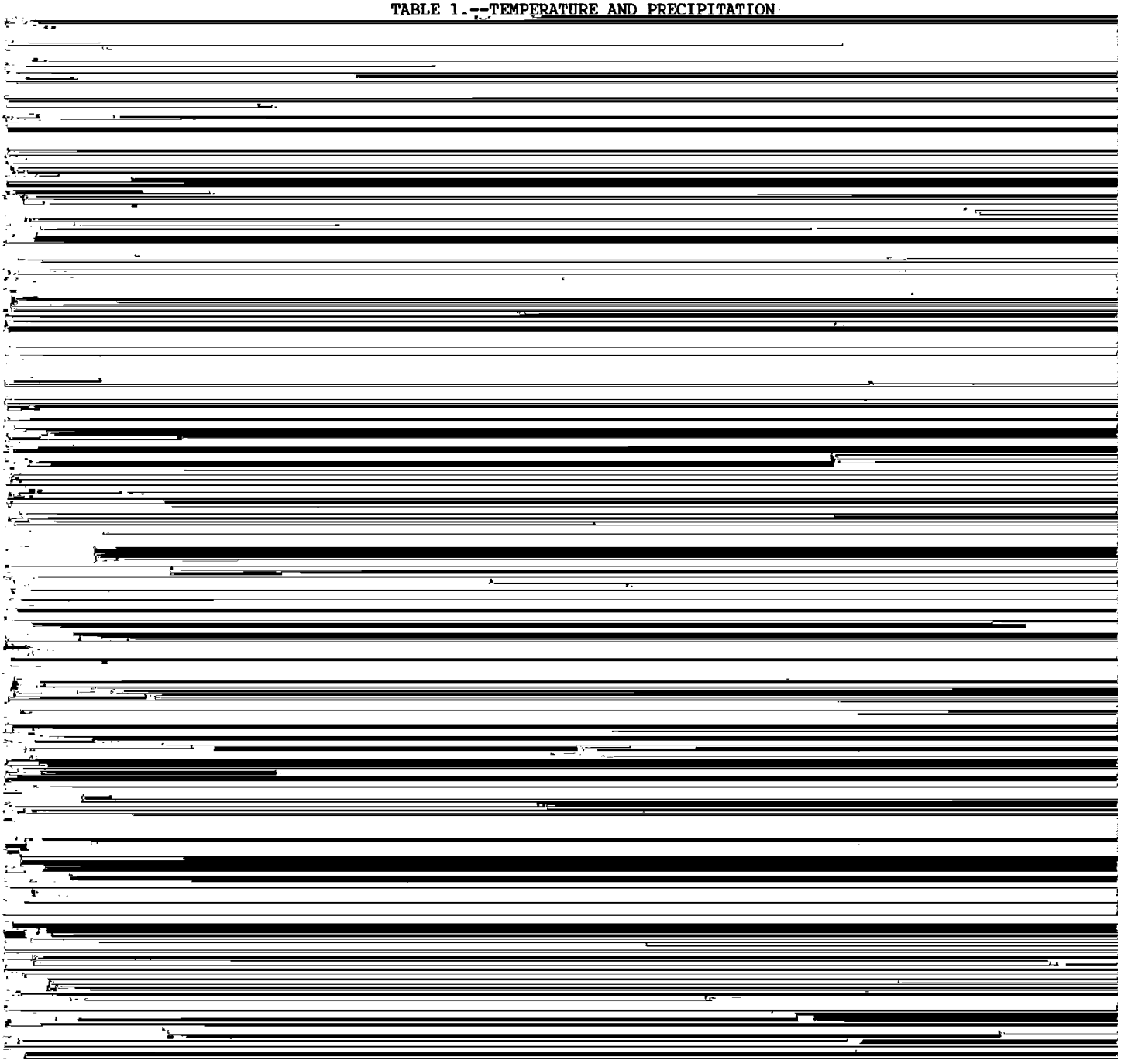


TABLE 2.--FREEZE DATES IN SPRING AND FALL

[Data recorded in the period 1951-79
at Covington, Louisiana]

Probability	Temperature		
	24 °F or lower	28 °F or lower	32 °F or lower
Last freezing temperature in spring:			
1 year in 10 later than--	March 3	March 22	April 6
2 years in 10 later than--	February 21	March 12	March 28
5 years in 10 later than--	February 1	February 21	March 11
First freezing temperature in fall:			
1 year in 10 earlier than--	November 18	November 6	October 26
2 years in 10 earlier than--	November 29	November 13	November 1
5 years in 10 earlier than--	December 19	November 26	November 11

TABLE 4.--SUITABILITY AND LIMITATIONS OF MAP UNITS ON THE GENERAL SOIL MAP FOR MAJOR LAND USES

General soil map unit	Percent of area	Cultivated crops	Pastureland	Woodland	Urban uses	Intensive recreation areas
Savannah-Ruston---------	15.0	Moderately well suited: low fertility, slope.	Well suited----	Well suited------	Moderately well suited: wetness, moderate and moderately slow permeability.	Moderately well suited: slope, wetness, moderate and moderately slow permeability.
Guyton-Abita-Brimstone--	9.0	Moderately well suited: wetness, low fertility, excess sodium salts in subsoil.	Moderately well suited: wetness, low fertility.	Well suited------	Poorly suited: flooding, wetness, slow permeability, low strength for roads.	Poorly suited: wetness, flooding.
Myatt-Stough-Prentiss---	41.5	Moderately well suited: wetness, low fertility.	Well suited----	Well suited------	Poorly suited: wetness, flooding, moderately slow permeability.	Moderately well suited: wetness, flooding, moderately slow permeability.
Cahaba-Prentiss-Latonia-	5.0	Moderately well suited: low fertility, droughtiness.	Well suited----	Well suited------	Moderately well suited: wetness, moderately slow permeability, seepage, cutbanks cave, droughtiness, slope.	Moderately well suited: wetness, moderately slow permeability, slope, droughtiness.
Arkabutla-Rosebloom-----	10.0	Poorly suited: flooding, wetness.	Poorly suited: flooding, wetness.	Moderately well suited: flooding, wetness, moderate seedling mortality, equipment use limitations.	Not suited: flooding, wetness.	Not suited: flooding, wetness.
Ouachita-Bibb----------	5.0	Poorly suited: flooding, wetness.	Poorly suited: flooding, wetness.	Moderately well suited: flooding, wetness, moderate seedling mortality, equipment use limitations.	Not suited: flooding, wetness.	Not suited: flooding, wetness.

TABLE 4.--SUITABILITY AND LIMITATIONS OF MAP UNITS ON THE GENERAL SOIL MAP FOR MAJOR LAND USES--Continued

General soil map unit	Percent of area	Cultivated crops	Pastureland	Woodland	Urban uses	Intensive recreation areas
Larose-Allemands-Kenner-	4.0	Not suited: flooding, ponding, low strength.	Not suited: flooding, ponding, low strength.	Not suited: flooding, ponding, low strength.	Not suited: flooding, ponding, low strength, subsidence potential.	Not suited: flooding, ponding, low strength.
Arat----------	4.0	Not suited: flooding, ponding, low strength.	Not suited: flooding, ponding, low strength.	Not suited: flooding, ponding, low strength.	Not suited: flooding, ponding, low strength, subsidence potential.	Not suited: flooding, ponding, low strength.
Clovelly-Lafitte--------	4.0	Not suited: flooding, ponding, low strength, salinity.	Not suited: flooding, ponding, low strength, salinity.	Not suited: flooding, ponding, low strength, salinity.	Not suited: flooding, ponding, low strength, subsidence potential.	Not suited: flooding, ponding, low strength.
Barbary-Maurepas--------	0.5	Not suited: flooding, ponding, low strength.	Not suited: flooding, ponding, low strength.	Not suited: flooding, ponding, low strength.	Not suited: flooding, ponding, low strength, subsidence potential.	Not suited: flooding, ponding, low strength.
Aquents-Allemands-Harahan----------	2.0	Poorly suited: wetness, poor tilth.	Moderately well suited: wetness.	Moderately well suited: equipment use limitations, seedling mortality.	Poorly suited: flooding, wetness, slow and very slow permeability, shrink-swell potential, subsidence potential, low strength for roads.	Poorly suited: flooding, wetness, slow and very slow permeability.

TABLE 5.--ACREAGE AND PROPORTIONATE EXTENT OF THE SOILS

Map symbol	Soil name	Acres	Percent
Aa	Abita silt loam, 0 to 2 percent slopes	15,642	2.2
Ab	Abita silt loam, 2 to 5 percent slopes	1,295	0.2
AC	Allemands muck	4,025	0.6
Ad	Allemands muck, drained	2,970	0.4
Aq	Aquents, dredged	4,698	0.7
AR	Arat silty clay loam	23,795	3.3
AT	Arkabutla and Rosebloom soils, frequently flooded	58,324	8.1
BB	Barbary mucky clay	1,445	0.2
Bq	Brimstone-Guyton silt loams	8,935	1.2
Ca	Cahaba fine sandy loam, 1 to 3 percent slopes	11,060	1.5
CV	Clovelly muck	14,645	2.0
Dp	Dumps	90	*
Gt	Guyton silt loam	16,253	2.3
Gy	Guyton silt loam, occasionally flooded	11,244	1.6
Ha	Harahan clay	1,640	0.2
KE	Kenner muck	2,925	0.4
LF	Lafitte muck	9,822	1.4
LR	Larose muck	14,160	2.0
Lt	Latonia fine sandy loam	7,616	1.1
MA	Maurepas muck	1,220	0.2
Md	Maurepas muck, drained	470	*
Mt	Myatt fine sandy loam	63,209	8.8
My	Myatt fine sandy loam, frequently flooded	34,932	4.8

TABLE 6.--LAND CAPABILITY CLASSES AND YIELDS PER ACRE OF CROPS AND PASTURE

[Yields are those that can be expected under a high level of management. Absence of a yield indicates that the soil is not suited to the crop or the crop generally is not grown on the soil]

Map symbol and soil name	Land capability	Soybeans	Common bermudagrass	Improved bermudagrass	Bahiagrass
		Bu	AUM*	AUM*	AUM*
Aa--- Abita	IIw	30	5.0	10.5	6.5
Ab--- Abita	IIe	25	5.0	10.5	6.5
AC--- Allemands	VIIw	---	---	---	---
Ad--- Allemands	IVw	---	9.0	---	---
Aq. Aquents					
AR--- Arat	VIIIw	---	---	---	---
AT--- Arkabutla and Rosebloom	Vw	---	5.0	---	---
BB--- Barbary	VIIw	---	---	---	---
Bq--- Brimstone-Guyton	IIIw	20	6.0	---	7.0
Ca--- Cahaba	IIe	30	6.0	13.0	9.0
CV--- Clovelly	VIIw	---	---	---	---
Dp. Dumps					
Gt--- Guyton	IIIw	20	5.5	---	7.5
Gy--- Guyton	IVw	---	5.0	---	7.0
Ha--- Harahan	IIIw	---	10.0	---	---
KE--- Kenner	VIIIw	---	---	---	---
LF--- Lafitte	VIIIw	---	---	---	---
LR--- Larose	VIIw	---	---	---	---
Lt--- Latonia	IIs	25	6.0	9.5	8.5

See footnote at end of table.

TABLE 6.--LAND CAPABILITY CLASSES AND YIELDS PER ACRE OF CROPS AND PASTURE--Continued

Map symbol and soil name	Land capability	Soybeans	Common bermudagrass	Improved bermudagrass	Bahiagrass
		Bu	AUM*	AUM*	AUM*
MA---------- Maurepas	VIIIw	---	---	---	---
Md---------- Maurepas	IVw	20	11.0	---	7.5
Mt---------- Myatt	IVw	---	5.5	---	---
My---------- Myatt	Vw	---	5.0	---	---
OB---------- Ouachita and Bibb	Vw	---	5.0	---	---
Pg. Pits					
Pr---------- Prentiss	IIw	30	6.0	10.0	9.0
Pt---------- Prentiss	IIe	30	6.0	10.0	9.0
Rs---------- Ruston	IIe	30	5.5	12.0	9.5
Rt---------- Ruston	IIIe	25	5.5	12.0	9.5
Sa---------- Savannah	IIe	30	5.5	11.0	9.0
Sh---------- Savannah	IIIe	25	5.5	11.0	9.0
Sm---------- Smithdale	IVe	---	5.0	9.0	8.0
St---------- Stough	IIw	25	6.0	11.0	9.0

* Animal-unit-month: The amount of forage or feed required to feed one animal unit (one cow, one horse, one mule, five sheep, or five goats) for 30 days.

TABLE 7.--CAPABILITY CLASSES AND SUBCLASSES

[Miscellaneous areas are excluded. Absence of en-

TABLE 8.--WOODLAND MANAGEMENT AND PRODUCTIVITY

[Only the soils suitable for production of commercial trees are listed. Absence of an entry indicates that information was not available]

Map symbol and soil name	Ordination symbol	Management concerns			Potential productivity			Trees to plant
		Erosion hazard	Equipment limitation	Seedling mortality	Common trees	Site index	Productivity class*	
Aa, Ab---------- Abita	11W	Slight	Moderate	Slight	Loblolly pine-------- Slash pine---------- Longleaf pine-------- Sweetgum---------- Southern red oak----- Water oak----------	100 95 --- --- --- ---	11 12 -- -- -- --	Loblolly pine, slash pine, longleaf pine.
AR---------- Arat	5W	Slight	Severe	Severe	Water tupelo--------- Baldcypress----------	50 50	5 3	Baldcypress.
AT: Arkabutla---------	12W	Slight	Moderate	Severe	Cherrybark oak------- Eastern cottonwood--- Green ash---------- Loblolly pine-------- Nuttall oak---------- Sweetgum---------- Water oak----------	105 110 95 100 110 100 100	12 11 4 11 -- 10 7	Eastern cottonwood, green ash, loblolly pine, sweetgum, American sycamore.
Rosebloom---------	9W	Slight	Moderate	Severe	Eastern cottonwood--- Green ash----------	100 95	9 --	Green ash, eastern cottonwood

TABLE 8.--WOODLAND MANAGEMENT AND PRODUCTIVITY--Continued

Map symbol and soil name	Ordination symbol	Management concerns			Potential productivity			Trees to plant
		Erosion hazard	Equipment limitation	Seedling mortality	Common trees	Site index	Productivity class*	
Gt---------- Guyton	9W	Slight	Severe	Moderate	Loblolly pine--------	90	9	Loblolly pine, sweetgum.
					Slash pine----------	90	11	
					Sweetgum----------	---	--	
					Green ash----------	---	--	
					Southern red oak-----	---	--	
					Water oak----------	---	--	
Gy---------- Guyton	9W	Slight	Severe	Severe	Loblolly pine--------	90	9	Loblolly pine, sweetgum.
					Slash pine----------	90	11	
					Sweetgum----------	---	--	
					Green ash----------	---	--	
					Water oak----------	---	--	
Lt---------- Latonia	9A	Slight	Slight	Slight	Loblolly pine--------	90	9	Loblolly pine, slash pine.
					Longleaf pine--------	70	6	
					Slash pine----------	90	11	
Mt, My---------- Myatt	9W	Slight	Severe	Severe	Loblolly pine--------	88	9	Loblolly pine, slash pine, sweetgum.
					Slash pine----------	92	12	
					Sweetgum----------	92	8	
					Water oak----------	86	--	
					Southern red oak-----	---	--	
					White oak----------	---	--	
					American sycamore----	---	--	
					Blackgum----------	---	--	
					Shumard oak----------	---	--	
OB:								
Ouachita----------	9W	Slight	Moderate	Severe	Loblolly pine--------	100	9	Loblolly pine, sweetgum, yellow poplar, American sycamore, eastern cottonwood.
					Sweetgum----------	100	10	
					Eastern cottonwood---	100	9	
Bibb----------	9W	Slight	Moderate	Severe	Loblolly pine--------	90	9	Eastern cottonwood, loblolly pine, sweetgum, yellow poplar.
					Sweetgum----------	90	7	
					Water oak----------	90	6	
					Blackgum----------	---	--	
Pr, Pt---------- Prentiss	9A	Slight	Slight	Slight	Loblolly pine--------	88	9	Loblolly pine, slash pine.
					Shortleaf pine-------	79	9	
					Sweetgum----------	90	7	
					Cherrybark oak-------	90	8	
					White oak----------	80	4	
Rs, Rt---------- Ruston	9A	Slight	Slight	Slight	Loblolly pine--------	91	9	Loblolly pine, slash pine, longleaf pine.
					Slash pine----------	91	12	
					Longleaf pine--------	76	6	
Sa, Sh---------- Savannah	9A	Slight	Slight	Slight	Loblolly pine--------	88	9	Loblolly pine, slash pine, sweetgum, American sycamore, yellow poplar.
					Longleaf pine--------	78	7	
					Slash pine----------	88	11	
					Sweetgum----------	85	6	

See footnote at end of table.

TABLE 8.--WOODLAND MANAGEMENT AND PRODUCTIVITY--Continued

Map symbol and soil name	Ordination symbol	Management concerns			Potential productivity			Trees to plant
		Erosion hazard	Equipment limitation	Seedling mortality	Common trees	Site index	Productivity class*	
Sm---------- Smithdale	9A	Slight	Slight	Slight	Loblolly pine--------	86	9	Loblolly pine, longleaf pine, slash pine.
					Longleaf pine--------	69	5	
					Slash pine----------	85	11	
St---------- Stough	9W	Slight	Moderate	Slight	Loblolly pine--------	90	9	Loblolly pine, slash pine, sweetgum.
					Cherrybark oak-------	85	4	
					Slash pine----------	86	11	
					Sweetgum------------	85	6	
					Water oak-----------	80	5	

* Productivity class is the yield in cubic meters per hectare per year calculated at the age of culmination of mean annual increment for fully stocked natural stands.

TABLE 9.--RECREATIONAL DEVELOPMENT

[Some terms that describe restrictive soil features are defined in the Glossary. See text for definitions of "slight," "moderate," and "severe." Absence of an entry indicates that the soil was not rated]

Map symbol and soil name	Camp areas	Picnic areas	Playgrounds	Paths and trails	Golf fairways
Aa Abita	Moderate: wetness, percs slowly.	Moderate: wetness, percs slowly.	Moderate: wetness, percs slowly.	Moderate: wetness.	Moderate: wetness.
Ab Abita	Moderate: wetness, percs slowly.	Moderate: wetness, percs slowly.	Moderate: slope, wetness, percs slowly.	Moderate: wetness.	Moderate: wetness.
AC Allemands	Severe: flooding, ponding, percs slowly.	Severe: ponding, excess humus, percs slowly.	Severe: flooding, excess humus, ponding.	Severe: ponding, excess humus.	Severe: flooding, ponding, excess humus.
Ad Allemands	Severe: flooding, wetness, percs slowly.	Severe: wetness, excess humus.	Severe: excess humus, wetness.	Severe: wetness, excess humus.	Severe: wetness.
Ag. Aquents					
AR Arat	Severe: flooding, ponding.	Severe: ponding.	Severe: ponding, flooding.	Severe: ponding.	Severe: ponding, flooding.
AT: Arkabutla	Severe: flooding,	Moderate: flooding,	Severe: flooding,	Moderate: flooding,	Severe: flooding,

TABLE 9.--RECREATIONAL DEVELOPMENT--Continued

Map symbol and soil name	Camp areas	Picnic areas	Playgrounds	Paths and trails	Golf fairways
CV---------- Clovelly	Severe: flooding, ponding, percs slowly.	Severe: ponding, excess humus, percs slowly.	Severe: flooding, excess humus, ponding.	Severe: ponding, excess humus.	Severe: flooding, ponding, excess humus.
Dp. Dumps					
Gt, Gy---------- Guyton	Severe: flooding, wetness.	Severe: wetness.	Severe: wetness.	Severe: wetness.	Severe: wetness.
Ha---------- Harahan	Severe: flooding, wetness, percs slowly.	Severe: too clayey, percs slowly.	Severe: too clayey, wetness.	Severe: too clayey.	Severe: too clayey.
KE---------- Kenner	Severe: flooding, ponding, percs slowly.	Severe: ponding, excess humus, percs slowly.	Severe: excess humus, ponding, flooding.	Severe: ponding, excess humus.	Severe: flooding, ponding, excess humus.
LF---------- Lafitte	Severe: flooding, ponding, excess humus.	Severe: ponding, excess humus, wetness.	Severe: excess humus, ponding, flooding.	Severe: ponding, excess humus.	Severe: excess humus, ponding, flooding.
LR---------- Larose	Severe: flooding, ponding, percs slowly.	Severe: ponding, excess humus, percs slowly.	Severe: excess humus, ponding, flooding.	Severe: ponding, excess humus.	Severe: flooding, ponding, excess humus.
Lt---------- Latonia	Slight----------	Slight----------	Slight----------	Slight----------	Moderate: droughty.
MA---------- Maurepas	Severe: flooding, ponding, excess humus.	Severe: ponding, excess humus.	Severe: excess humus, ponding, flooding.	Severe: ponding, excess humus.	Severe: ponding, flooding, excess humus.
Md---------- Maurepas	Severe: flooding, excess humus, wetness.	Severe: excess humus.	Severe: excess humus, wetness.	Severe: excess humus.	Severe: excess humus.
Mt---------- Myatt	Severe: flooding, wetness.	Severe: wetness.	Severe: wetness.	Severe: wetness.	Severe: wetness.
My---------- Myatt	Severe: flooding, wetness.	Severe: wetness.	Severe: wetness, flooding.	Severe: wetness.	Severe: wetness, flooding.
OB: Ouachita----------	Severe: flooding.	Moderate: flooding, percs slowly.	Severe: flooding.	Moderate: flooding.	Severe: flooding.
Bibb----------	Severe: flooding, wetness.	Severe: wetness.	Severe: wetness, flooding.	Severe: wetness.	Severe: wetness, flooding.

TABLE 9.--RECREATIONAL DEVELOPMENT--Continued

Map symbol and soil name	Camp areas	Picnic areas	Playgrounds	Paths and trails	Golf fairways
Pg. Pits					
Dr-	Moderate:	Moderate:	Moderate:	Slight	Moderate:

TABLE 10.--WILDLIFE HABITAT

[See text for definitions of "good," "fair," "poor," and "very poor." Absence of an entry indicates that the soil was not rated]

Map symbol and soil name	Potential for habitat elements								Potential as habitat for--		
	Grain and seed crops	Grasses and legumes	Wild herbaceous plants	Hardwood trees	Coniferous plants	Shrubs	Wetland plants	Shallow water areas	Openland wildlife	Woodland wildlife	Wetland wildlife
Aa---------- Abita	Fair	Good	Good	Good	Good	Good	Fair	Fair	Good	Good	Fair.
Ab---------- Abita	Fair	Good	Good	Good	Good	Good	Poor	Very poor.	Good	Good	Very poor.
AC---------- Allemands	Very poor.	Very poor.	Very poor.	Very poor.	---	---	Good	Poor	Very poor.	Very poor.	Good.
Ad---------- Allemands	Poor	Fair	Fair	---	---	Fair	Good	Fair	Fair	Fair	Good.
Aq. Aquents											
AR---------- Arat	Very poor.	Very poor.	Very poor.	Very poor.	---	Very poor.	Good	Fair	Very poor.	Very poor.	Good.
AT:											
Arkabutla---------	Poor	Fair	Fair	Good	Good	Good	Fair	Fair	Fair	Good	Fair.
Rosebloom---------	Poor	Fair	Fair	Fair	Fair	Fair	Good	Good	Fair	Fair	Good.
BB---------- Barbary	Very poor.	Very poor.	Very poor.	Very poor.	---	---	Good	Fair	Very poor.	Very poor.	Good.
Bg:											
Brimstone---------	Fair	Fair	Fair	Fair	Fair	Fair	Good	Good	Fair	Fair	Good.
Guyton----------	Fair	Fair	Fair	Fair	Fair	Fair	Good	Good	Fair	Fair	Good.
Ca---------- Cahaba	Good	Good	Good	Good	Good	Good	Poor	Very poor.	Good	Good	Very poor.
CV---------- Clovelly	Very poor.	Very poor.	Very poor.	Very poor.	---	---	Good	Poor	Very poor.	Very poor.	Good.
Dp. Dumps											
Gt---------- Guyton	Fair	Fair	Fair	Fair	Fair	Fair	Good	Good	Fair	Fair	Good.
Gy---------- Guyton	Poor	Fair	Fair	Fair	Fair	Fair	Good	Good	Fair	Fair	Good.
Ha---------- Harahan	Fair	Fair	Fair	---	---	Fair	Good	Good	Fair	Fair	Good.
KE---------- Kenner	Very poor.	Very poor.	Very poor.	---	---	---	Good	Very poor.	Very poor.	---	Good.
LF---------- Lafitte	Very poor.	Very poor.	Very poor.	---	---	---	Good	Very poor.	Very poor.	---	Good.

TABLE 10.--WILDLIFE HABITAT--Continued

Map symbol and soil name	Potential for habitat elements								Potential as habitat for--		
	Grain and seed crops	Grasses and legumes	Wild herbaceous plants	Hardwood trees	Coniferous plants	Shrubs	Wetland plants	Shallow water areas	Openland wildlife	Woodland wildlife	Wetland wildlife
LR---------- Larose	Very poor.	Very poor.	Very poor.	Very poor.	---	---	Good	Fair	Very poor.	Very poor.	Good.
Lt---------- Latonia	Good	Good	Good	Good	Good	Good	Very poor.	Very poor.	Good	Good	Very poor.
MA---------- Maurepas	Very poor.	Very poor.	Very poor.	Very poor.	---	Very poor.	Good	Very poor.	Very poor.	Very poor.	Fair.
Md---------- Maurepas	Poor	Fair	Fair	Fair	---	Fair	Fair	Very poor.	Poor	Fair	Fair.
Mt, My---------- Myatt	Poor	Fair	Fair	Fair	Fair	Fair	Good	Good	Fair	Fair	Good.
OB: Ouachita----------	Poor	Fair	Fair	Good	Fair	Fair	Good	Fair	Fair	Good	Fair.
Bibb----------	Poor	Fair	Fair	Fair	Fair	Fair	Good	Good	Fair	Fair	Good.

TABLE 11.--BUILDING SITE DEVELOPMENT

[Some terms that describe restrictive soil features are defined in the Glossary. See text for definitions of "slight," "moderate," and "severe." Absence of an entry indicates that the soil was not rated. The information in this table indicates the dominant soil condition; it does not eliminate the need for onsite investigation]

Map symbol and soil name	Shallow excavations	Dwellings without basements	Small commercial buildings	Local roads and streets	Lawns and landscaping
Aa, Ab---------- Abita	Severe: wetness.	Moderate: wetness, shrink-swell.	Moderate: wetness, shrink-swell.	Severe: low strength.	Moderate: wetness.
AC---------- Allemands	Severe: excess humus, ponding.	Severe: flooding, ponding, subsides.	Severe: flooding, ponding, subsides.	Severe: flooding, ponding, subsides.	Severe: flooding, ponding, excess humus.
Ad---------- Allemands	Severe: excess humus, wetness.	Severe: flooding, subsides, wetness.	Severe: flooding, subsides, wetness.	Severe: wetness, subsides.	Severe: wetness.
Ag. Aquents					

TABLE 11.--BUILDING SITE DEVELOPMENT--Continued

Map symbol and soil name	Shallow excavations	Dwellings without basements	Small commercial buildings	Local roads and streets	Lawns and landscaping
Gt Guyton	Severe: wetness.	Severe: flooding, wetness.	Severe: flooding, wetness.	Severe: low strength, wetness.	Severe: wetness.
Gy Guyton	Severe: wetness.	Severe: flooding, wetness.	Severe: flooding, wetness.	Severe: low strength, wetness, flooding.	Severe: wetness.
Ha Harahan	Severe: wetness.	Severe: flooding, wetness, shrink-swell.	Severe: flooding, wetness, shrink-swell.	Severe: low strength, shrink-swell.	Severe: too clayey.
KE Kenner	Severe: excess humus, ponding.	Severe: flooding, low strength, ponding.	Severe: flooding, low strength, ponding.	Severe: flooding, ponding.	Severe: flooding, ponding, excess humus.
LF Lafitte	Severe: excess humus,	Severe: flooding,	Severe: flooding,	Severe: subsides,	Severe: excess humus,

TABLE 11.--BUILDING SITE DEVELOPMENT--Continued

Map symbol and soil name	Shallow excavations	Dwellings without basements	Small commercial buildings	Local roads and streets	Lawns and landscaping
Pr, Pt---------- Prentiss	Severe: wetness.	Moderate: wetness.	Moderate: wetness.	Moderate: wetness.	Moderate: droughty.
Rs---------- Ruston	Slight----------	Slight----------	Slight----------	Moderate: low strength.	Slight.
Rt---------- Ruston	Slight----------	Slight----------	Moderate: slope.	Moderate: low strength.	Slight.
Sa---------- Savannah	Severe: wetness.	Moderate: wetness.	Moderate: wetness.	Moderate: wetness.	Moderate: wetness, droughty.
Sh---------- Savannah	Severe: wetness.	Moderate: wetness.	Moderate: wetness, slope.	Moderate: wetness.	Moderate: wetness, droughty.
Sm---------- Smithdale	Moderate: slope.	Moderate: slope.	Severe: slope.	Moderate: slope.	Moderate: slope.
St----------	Severe:	Severe:	Severe:	Moderate:	Moderate:

TABLE 12.--SANITARY FACILITIES

[Some terms that describe restrictive soil features are defined in the Glossary. See text for definitions of "slight," "good," and other terms. Absence of an entry indicates that the soil was not rated. The information in this table indicates the dominant soil condition; it does not eliminate the need for onsite investigation]

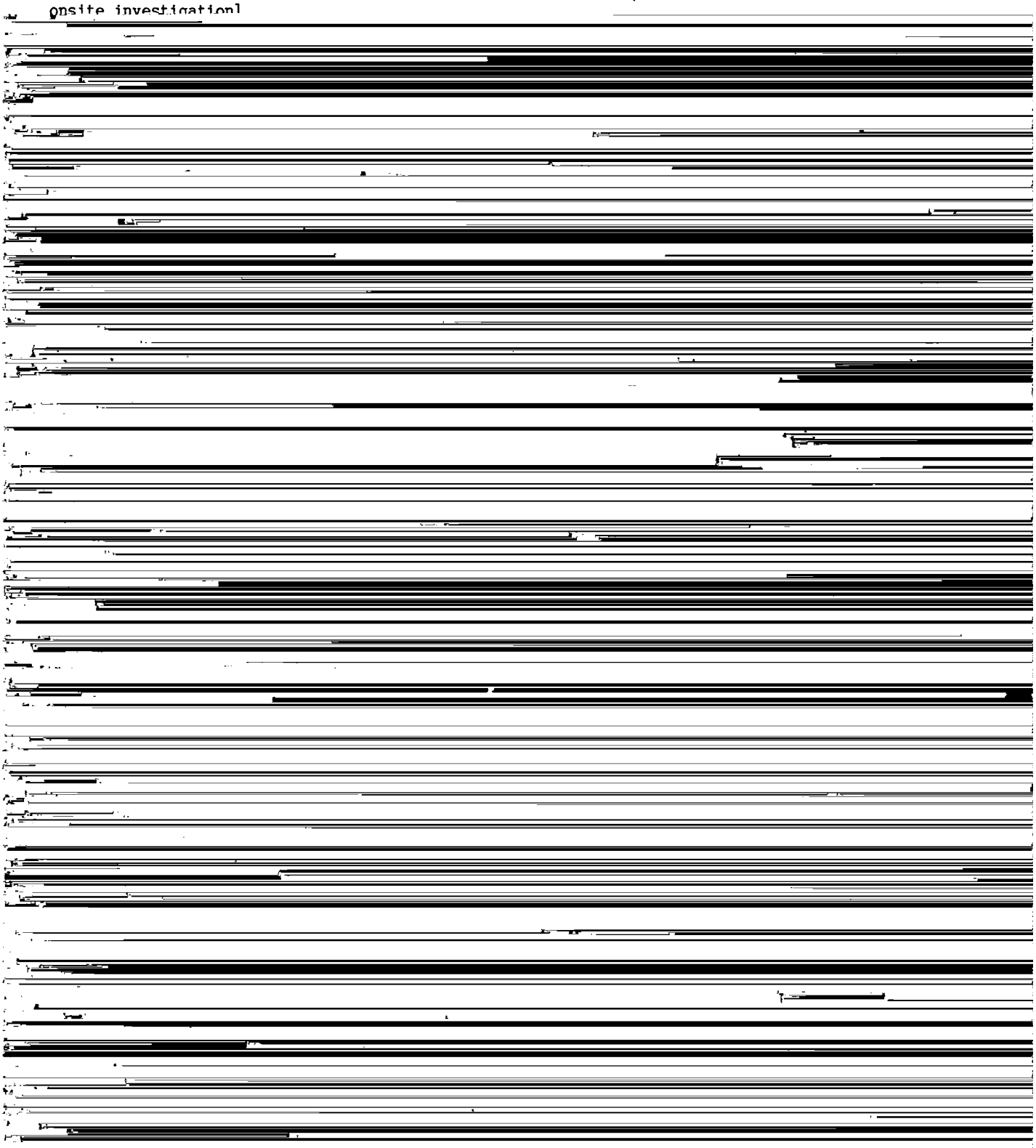


TABLE 12.--SANITARY FACILITIES--Continued

Map symbol and soil name	Septic tank absorption fields	Sewage lagoon areas	Trench sanitary landfill	Area sanitary landfill	Daily cover for landfill
Dp. Dumps					
Gt---------- Guyton	Severe: wetness, percs slowly.	Severe: wetness.	Severe: wetness.	Severe: wetness.	Poor: wetness.
Gy---------- Guyton	Severe: flooding, wetness.	Severe: flooding, wetness.	Severe: flooding, wetness.	Severe: flooding, wetness.	Poor: wetness.

TABLE 12.--SANITARY FACILITIES--Continued

Map symbol and soil name	Septic tank absorption fields	Sewage lagoon areas	Trench sanitary landfill	Area sanitary landfill	Daily cover for landfill
Pg. Pits					
Pr, Pt---------- Prentiss	Severe: wetness, percs slowly.	Severe: wetness.	Moderate: wetness.	Moderate: wetness.	Fair: wetness.
Rs, Rt----------	Moderate:	Moderate:	Moderate:	Slight----------	Fair:

TABLE 13.--CONSTRUCTION MATERIALS

[Some terms that describe restrictive soil features are defined in the Glossary. See text for definitions of "good," "fair," and other terms. Absence of an entry indicates that the soil was not rated. The information in this table indicates the dominant soil condition; it does not eliminate the need for onsite investigation]

Map symbol and soil name	Roadfill	Sand	Gravel	Topsoil
Aa, Ab Abita	Poor: low strength.	Improbable: excess fines.	Improbable: excess fines.	Fair: thin layer.
AC Allemands	Poor: wetness.	Probable: excess humus.	Probable: excess humus.	Poor: excess humus, wetness.
Ad Allemands	Poor: thin layer, wetness.	Improbable: excess humus.	Improbable: excess humus.	Poor: excess humus, wetness.
Aq. Aquents				
AR Arat	Poor: low strength, wetness.	Improbable: excess fines.	Improbable: excess fines.	Poor: wetness.
AT: Arkabutla	Poor: low strength.	Improbable: excess fines.	Improbable: excess fines.	Good.
Rosebloom	Poor: wetness.	Improbable: excess fines.	Improbable: excess fines.	Poor: wetness.
BB Barbary	Poor: low strength, wetness, shrink-swell.	Improbable: excess fines.	Improbable: excess fines.	Poor: wetness.
Bg: Brimstone	Poor: low strength, wetness.	Improbable: excess fines.	Improbable: excess fines.	Poor: wetness.
Guyton	Poor: wetness.	Improbable: excess fines.	Improbable: excess fines.	Poor: wetness.
Ca Cahaba	Good	Probable	Improbable: too sandy.	Good.
CV Clovelly	Poor: wetness.	Improbable: excess humus.	Improbable: excess humus.	Poor: excess humus, wetness.
Dp. Dumps				
Gt, Gy Guyton	Poor: wetness.	Improbable: excess fines.	Improbable: excess fines.	Poor: wetness.
Ha Harahan	Poor: low strength, shrink-swell.	Improbable: excess fines.	Improbable: excess fines.	Poor: too clayey.

TABLE 13.--CONSTRUCTION MATERIALS--Continued

Map symbol and soil name	Roadfill	Sand	Gravel	Topsoil
KE---------- Kenner	Poor: wetness, excess humus.	Improbable: excess humus.	Improbable: excess humus.	Poor: excess humus, wetness.
LF---------- Lafitte	Poor: excess humus, wetness.	Improbable: excess humus.	Improbable: excess humus.	Poor: excess humus, wetness.
LR---------- Larose	Poor: low strength, wetness.	Improbable: excess fines.	Improbable: excess fines.	Poor: excess humus, wetness.
Lt---------- Latonia	Good----------	Probable----------	Improbable: too sandy.	Fair: thin layer.
MA---------- Maurepas	Poor: wetness, excess humus.	Improbable: excess humus.	Improbable: excess humus.	Poor: excess humus, wetness.
Md---------- Maurepas	Poor: low strength, excess humus.	Improbable: excess humus.	Improbable: excess humus.	Poor: excess humus.
Mt, My---------- Myatt	Poor: wetness.	Improbable: excess fines.	Improbable: excess fines.	Poor: wetness.
OB: Ouachita----------	Poor: low strength.	Improbable: excess fines.	Improbable: excess fines.	Good.
Bibb----------	Poor:	Improbable:	Improbable:	Poor:

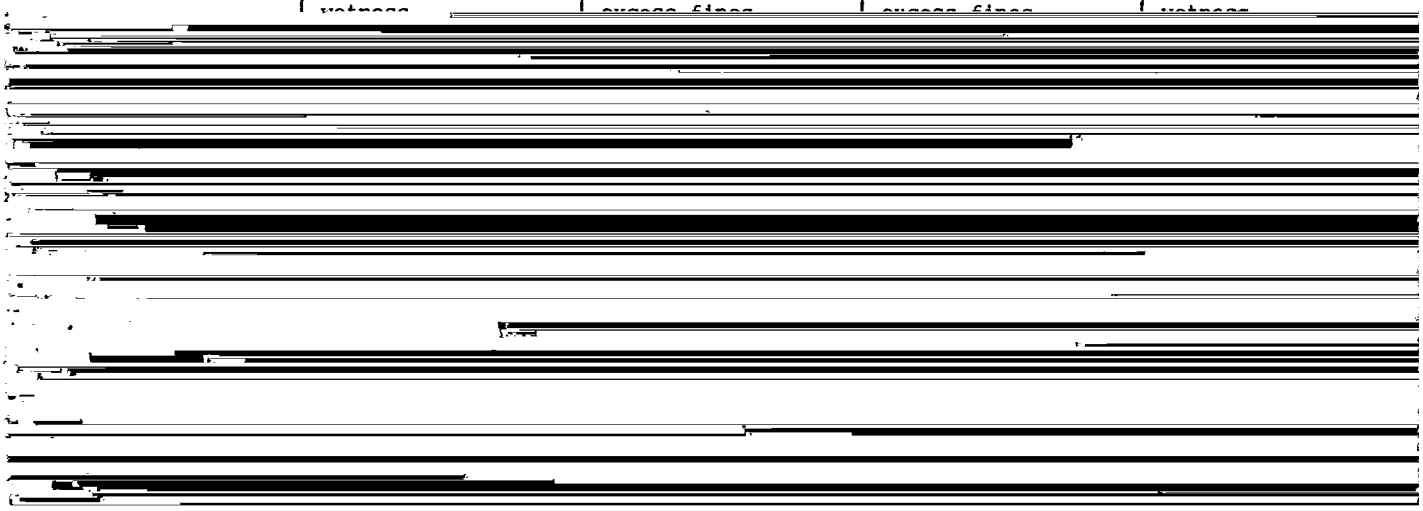


TABLE 14.--WATER MANAGEMENT

[Some terms that describe restrictive soil features are defined in the Glossary. See text for definitions of "slight," "moderate," and "severe." Absence of an entry indicates that the soil was not evaluated. The information in this table indicates the dominant soil condition; it does not eliminate the need for onsite investigation]

Map symbol and soil name	Limitations for--		Features affecting--			
	Pond reservoir areas	Embankments, dikes, and levees	Drainage	Irrigation	Terraces and diversions	Grassed waterways
Aa---------- Abita	Slight---------	Moderate: wetness, piping.	Percs slowly---	Wetness, percs slowly, erodes easily.	Erodes easily, wetness, percs slowly.	Erodes easily, percs slowly.
Ab---------- Abita	Moderate: slope.	Moderate: wetness, piping.	Slope, percs slowly.	Slope, wetness, percs slowly.	Erodes easily, wetness, percs slowly.	Erodes easily, percs slowly.
AC---------- Allemands	Severe: seepage.	Severe: excess humus, ponding.	Flooding, percs slowly, ponding.	Flooding, ponding, percs slowly.	Ponding--------	Wetness, percs slowly.
Ad---------- Allemands	Severe: seepage.	Severe: excess humus, wetness.	Percs slowly, subsides.	Percs slowly, wetness.	Wetness--------	Wetness, percs slowly.
Ag. Aquents						
AR---------- Arat	Slight---------	Severe: ponding, piping.	Ponding, flooding, percs slowly.	Ponding, flooding, percs slowly.	Erodes easily, ponding, percs slowly.	Wetness, erodes easily, percs slowly.
AT: Arkabutla--------	Moderate: seepage.	Severe: wetness.	Flooding-------	Wetness, erodes easily, flooding.	Erodes easily, wetness.	Erodes easily.
Rosebloom--------	Slight---------	Severe: wetness.	Percs slowly, flooding.	Wetness, percs slowly, erodes easily.	Erodes easily, wetness, percs slowly.	Wetness, erodes easily, percs slowly.
BB---------- Barbary	Slight---------	Severe: excess humus, hard to pack, ponding.	Ponding, percs slowly, flooding.	Ponding, percs slowly, flooding.	Ponding, percs slowly.	Wetness, percs slowly.
Bg: Brimstone--------	Slight---------	Severe: wetness.	Percs slowly---	Wetness, percs slowly, erodes easily.	Erodes easily, wetness, percs slowly.	Wetness, percs slowly, erodes easily.
Guyton----------	Moderate: seepage.	Severe: piping, wetness.	Percs slowly---	Wetness, percs slowly, erodes easily.	Erodes easily, wetness, percs slowly.	Wetness, erodes easily, percs slowly.
Ca---------- Cahaba	Severe: seepage.	Moderate: thin layer, piping.	Deep to water	Favorable------	Favorable------	Favorable.
CV---------- Clovelly	Severe: seepage.	Severe: ponding, excess humus.	Flooding, percs slowly, subsides.	Flooding, ponding, percs slowly.	Ponding--------	Wetness, percs slowly, excess salt.

TABLE 14.--WATER MANAGEMENT--Continued

Map symbol and soil name	Limitations for--		Features affecting--			
	Pond reservoir areas	Embankments, dikes, and levees	Drainage	Irrigation	Terraces and diversions	Grassed waterways
Dp. Dumps						
Gt---------- Guyton	Moderate: seepage.	Severe: piping, wetness.	Percs slowly---	Wetness, percs slowly, erodes easily.	Erodes easily, wetness, percs slowly.	Wetness, erodes easily, percs slowly.
Gy---------- Guyton	Moderate: seepage.	Severe: piping,	Percs slowly, flooding.	Wetness, percs slowly,	Erodes easily, wetness,	Wetness, erodes easily,

TABLE 14.--WATER MANAGEMENT--Continued

Map symbol and soil name	Limitations for--		Features affecting--			
	Pond reservoir areas	Embankments, dikes, and levees	Drainage	Irrigation	Terraces and diversions	Grassed waterways
Pg. Pits						
Pr, Pt---------- Prentiss	Moderate: seepage.	Severe: piping.	Favorable------	Wetness, droughty, rooting depth.	Wetness, rooting depth.	Droughty, rooting depth.
Rs---------- Ruston	Moderate: seepage.	Severe: thin layer.	Deep to water	Favorable------	Favorable------	Favorable.

TABLE 15.--ENGINEERING INDEX PROPERTIES

[The symbol < means less than; > means more than. Absence of an entry indicates that data were not estimated. Some soils may have Unified classifications and USDA textures in addition to those shown. In general, the dominant classifications and textures are shown]

Map symbol and soil name	Depth	USDA texture	Classification		Fragments > 3 inches	Percentage passing sieve number--				Liquid limit	Plasticity index
			Unified	AASHTO		4	10	40	200		
	In				Pct					Pct	
Aa	0-4	Silt loam	ML, CL-ML	A-4	0	100	100	90-100	70-90	<30	NP-7
Abita	4-23	Silt loam, silty clay loam.	ML, CL-ML, CL	A-4, A-6	0	100	100	95-100	80-95	20-40	4-20
	23-48	Silt loam, loam, silty clay loam.	CL, CH	A-6, A-7-6	0	100	100	95-100	80-95	35-55	20-35
	48-62	Silt loam, silty clay loam, loam.	CL	A-6, A-7-6	0	100	100	95-100	80-95	30-50	15-30
Ab	0-5	Silt loam	ML, CL-ML	A-4	0	100	100	90-100	70-90	<30	NP-7
Abita	5-29	Silt loam, silty clay loam.	ML, CL-ML, CL	A-4, A-6	0	100	100	95-100	80-95	20-40	4-20
	29-45	Clay loam, loam, silty clay loam.	CL, CH	A-6, A-7-6	0	100	100	95-100	80-95	35-55	20-35
	45-60	Clay loam, silty clay loam, loam.	CL	A-6, A-7-6	0	100	100	95-100	80-95	30-50	15-30
AC	0-48	Muck	PT	A-8	0	---	---	---	---	---	---
Allemands	48-58	Clay, mucky clay	MH, OH, CH	A-7-5	0	100	100	95-100	80-100	65-90	30-50
	58-75	Clay, silty clay loam.	CH, CL, ML, MH	A-7-6, A-6, A-5	0	100	100	85-95	75-95	30-75	6-45
Ad	0-38	Muck	PT	A-8	0	---	---	---	---	---	---
Allemands	38-74	Clay, silty clay loam.	CH, CL, ML, MH	A-7-6, A-6, A-5	0	100	100	85-100	75-95	30-75	6-45
Aq. Aquents											
AR	0-10	Silty clay loam	ML, CL-ML, CL	A-4, A-6	0	100	100	90-100	75-95	<40	NP-22
Arat	10-70	Silty clay loam, silt loam, mucky silty clay loam.	CL, CL-ML	A-6, A-4, A-7-6	0	100	100	90-100	80-95	22-45	6-25
AT:											
Arkabutla	0-4	Silt loam	CL, CL-ML	A-4, A-6	0	100	100	85-100	60-95	25-35	7-15

TABLE 15.--ENGINEERING INDEX PROPERTIES--Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments > 3 inches	Percentage passing sieve number--				Liquid limit	Plasticity index
			Unified	AASHTO		4	10	40	200		
	In				Pct					Pct	
Bg:											
Brimstone-------	0-5	Silt loam--------	CL-ML, CL	A-4, A-6	0	100	100	90-100	70-90	15-38	6-17
	5-33	Silt loam, silty clay loam, very fine sandy loam.	CL	A-6, A-7-6	0	100	100	95-100	80-95	26-48	11-33
	33-66	Silty clay loam, silt loam.	CL	A-6, A-7-6	0	100	100	95-100	80-95	26-48	11-33
Guyton----------	0-28	Silt loam--------	ML, CL-ML	A-4	0	100	100	95-100	65-90	<27	NP-7
	28-36	Silt loam, silty clay loam, clay loam.	CL, CL-ML	A-6, A-4	0	100	100	94-100	75-95	22-40	6-18
	36-66	Silt loam, silty clay loam, clay loam.	CL, CL-ML, ML	A-6, A-4	0	100	100	95-100	50-95	<40	NP-18
Ca---------------	0-7	Fine sandy loam	SM	A-4, A-2-4	0	95-100	95-100	65-90	30-45	---	NP
Cahaba	7-34	Sandy clay loam, loam, clay loam.	SC, CL	A-4, A-6	0	90-100	80-100	75-90	40-75	22-35	8-15
	34-65	Sand, loamy sand, sandy loam.	SM, SP-SM	A-2-4	0	95-100	90-100	60-85	10-35	---	NP
CV---------------	0-49	Muck-------------	PT	A-8	0	---	---	---	---	---	---
Clovelly	49-72	Clay, silty clay, mucky clay.	CH, CL, MH, ML	A-7-6, A-7-5	0	100	100	95-100	85-95	47-87	25-45
Dp.											
Dumps											
Gt---------------	0-22	Silt loam--------	ML, CL-ML	A-4	0	100	100	95-100	65-90	<27	NP-7
Guyton	22-50	Silt loam, silty clay loam, clay loam.	CL, CL-ML	A-6, A-4	0	100	100	94-100	75-95	22-40	6-18
	50-64	Silt loam, silty clay loam, sandy clay loam.	CL, CL-ML, ML	A-6, A-4	0	100	100	95-100	50-95	<40	NP-18
Gy---------------	0-27	Silt loam--------	ML, CL-ML	A-4	0	100	100	95-100	65-90	<27	NP-7
Guyton	27-48	Silt loam, silty clay loam, clay loam.	CL, CL-ML	A-6, A-4	0	100	100	94-100	75-95	22-40	6-18
	48-64	Silt loam, silty clay loam, clay loam.	CL, CL-ML, ML	A-6, A-4	0	100	100	95-100	50-95	<40	NP-18
Ha---------------	0-6	Clay-------------	OH, MH, CH	A-7-5, A-8.	0	100	100	100	95-100	60-90	35-50
Harahan											

TABLE 15.--ENGINEERING INDEX PROPERTIES--Continued

Map symbol and soil name	Depth	USDA texture	Classification		Frag-ments > 3 inches	Percentage passing sieve number--				Liquid limit	Plas-ticity index
			Unified	AASHTO		4	10	40	200		
	In				Pct					Pct	
KE----------	0-14	Muck----------	PT	A-8	0	---	---	---	---	---	---
Kenner	14-16	Clay, silty clay, mucky clay.	MH, OH	A-7-5	0	100	100	100	95-100	70-100	30-55
	16-45	Muck----------	PT	A-8	0	---	---	---	---	---	---
	45-46	Clay, silty clay, mucky clay.	MH, OH, CH	A-7-5	0	100	100	100	95-100	70-100	30-55
	46-75	Muck----------	PT	A-8	0	---	---	---	---	---	---
LF----------	0-84	Muck----------	PT	A-8	0	---	---	---	---	---	---
Lafitte	84-95	Variable----------	---	---	---	---	---	---	---	---	---
LR----------	0-2	Muck----------	PT	A-8	0	---	---	---	---	---	---
Larose	2-64	Clay, silty clay, mucky clay.	CH	A-7-5	0	100	100	100	90-100	60-87	30-52
Lt----------	0-4	Fine sandy loam	SM	A-2-4, A-4	0	90-100	85-100	60-75	30-50	---	NP
Latonia	4-26	Sandy loam, loam, fine sandy loam.	SM	A-2-4, A-4	0	90-100	85-100	60-85	30-50	---	NP
	26-62	Sand, loamy sand	SM, SP-SM	A-2-4	0	90-100	85-100	50-75	10-30	---	NP
MA----------	0-75	Muck----------	PT	A-8	0	---	---	---	---	---	---
Maurepas											
Md----------	0-70	Muck----------	PT	A-8	0	---	---	---	---	---	---
Maurepas											
Mt----------	0-16	Fine sandy loam	SM, SM-SC, ML, CL-ML	A-2, A-4	0	95-100	95-100	60-90	30-70	<25	NP-5
Myatt	16-50	Loam, sandy clay loam, clay loam.	SM, SC, ML, CL	A-4	0	95-100	95-100	80-100	40-80	<30	NP-10
	50-64	Sandy clay loam, clay loam.	SM-SC, SC, CL-ML, CL	A-6, A-4, A-2	0	75-100	60-90	60-80	30-70	16-40	5-20
My----------	0-14	Fine sandy loam	SM, SM-SC, ML, CL-ML	A-2, A-4	0	95-100	95-100	60-90	30-70	<25	NP-5
Myatt											

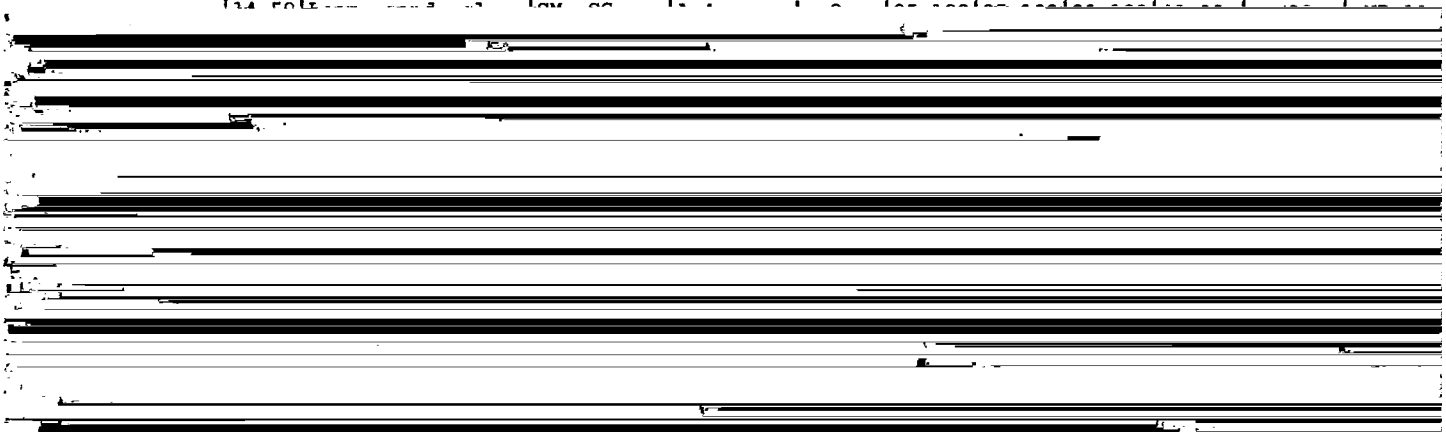


TABLE 15.--ENGINEERING INDEX PROPERTIES--Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments > 3 inches	Percentage passing sieve number--				Liquid limit	Plasticity index
			Unified	AASHTO		4	10	40	200		
	In				Pct					Pct	
Pr---------- Prentiss	0-25	Fine sandy loam	SC, SM-SC, SM	A-4	0	100	100	65-85	36-50	<30	NP-10
	25-62	Loam, sandy loam, fine sandy loam.	CL-ML, CL, SC, SM-SC	A-6, A-4	0	100	100	70-100	40-75	20-35	4-12
Pt----------	0-22	Fine sandy loam	SC, SM-SC,	A-4	0	100	100	65-85	36-50	<30	NP-10

TABLE 16.--PHYSICAL AND CHEMICAL PROPERTIES OF THE SOILS

[The symbol < means less than; > means more than. Entries under "Erosion factors--T" apply to the entire profile. Entries under "Organic matter" apply only to the surface layer. Absence of an entry indicates that data were not available or were not estimated]

Map symbol and soil name	Depth	Clay	Moist bulk density	Permeability	Available water capacity	Soil reaction	Salinity	Shrink-swell potential	Erosion factors		Organic matter
									K	T	
	In	Pct	G/cc	In/hr	In/in	pH	Mmhos/cm				Pct
Aa	0-4	2-12	1.35-1.65	0.6-2.0	0.16-0.23	3.6-7.3	<2	Low	0.49	5	.5-2
Abita	4-23	12-32	1.35-1.65	0.2-0.6	0.19-0.21	4.5-7.3	<2	Low	0.43		
	23-48	20-45	1.35-1.75	0.06-0.2	0.15-0.18	4.5-6.5	<2	Moderate	0.37		
	48-62	20-40	1.35-1.75	0.06-0.2	0.15-0.18	5.1-7.8	<2	Moderate	0.37		
Ab	0-5	2-12	1.35-1.65	0.6-2.0	0.16-0.23	3.6-7.3	<2	Low	0.49	5	.5-2
Abita	5-29	12-32	1.35-1.65	0.2-0.6	0.19-0.21	4.5-7.3	<2	Low	0.43		
	29-45	20-45	1.35-1.75	0.06-0.2	0.15-0.18	4.5-6.5	<2	Moderate	0.37		
	45-60	20-40	1.35-1.75	0.06-0.2	0.15-0.18	5.1-7.8	<2	Moderate	0.37		
AC	0-48	---	0.05-0.25	>2.0	0.20-0.50	5.1-7.8	<4	Low	----	---	---
Allemands	48-58	---	0.05-0.25	>2.0	0.20-0.50	6.1-8.4	<4	Low	----		
	58-75	60-95	0.15-1.00	<0.06	0.14-0.18	6.1-8.4	<4	Low	0.32		

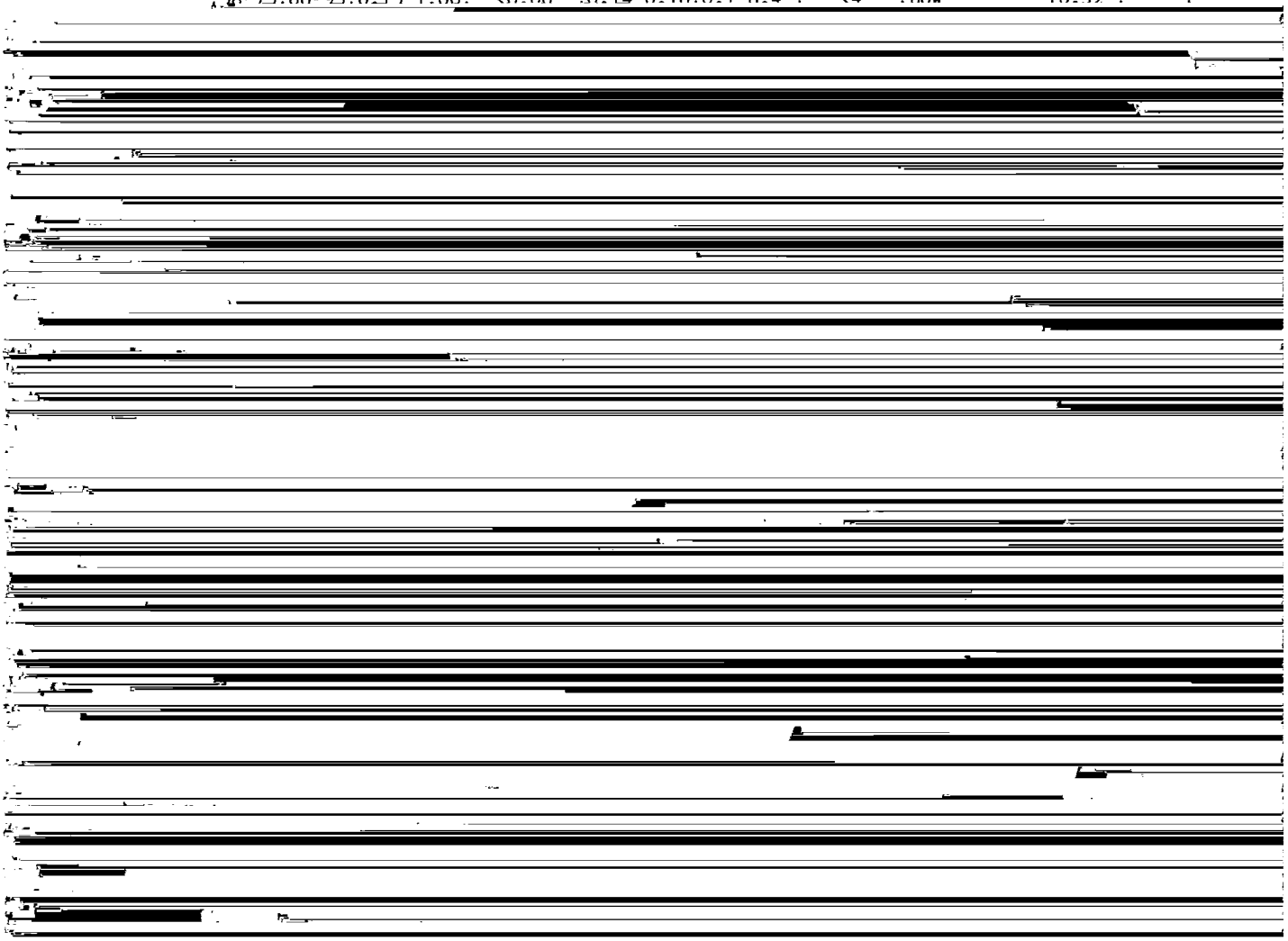


TABLE 16.--PHYSICAL AND CHEMICAL PROPERTIES OF THE SOILS--Continued

Map symbol and soil name	Depth	Clay	Moist bulk density	Permeability	Available water capacity	Soil reaction	Salinity	Shrink-swell potential	Erosion factors		Organic matter
									K	T	
	In	Pct	G/cc	In/hr	In/in	pH	Mmhos/cm				Pct
Gy	0-27	7-25	1.35-1.65	0.6-2.0	0.20-0.23	3.6-6.0	<2	Low	0.43	5	<2
Guyton	27-48	20-35	1.35-1.70	0.06-0.2	0.15-0.22	3.6-6.0	<2	Low	0.37		
	48-64	20-35	1.35-1.70	0.06-2.0	0.15-0.22	3.6-8.4	<2	Low	0.37		
Ha	0-6	50-95	0.50-1.50	<0.06	0.11-0.30	5.1-7.3	<2	Very high	0.37	5	2-25
Harahan	6-21	60-95	1.20-1.50	<0.06	0.11-0.20	5.1-7.3	<2	Very high	0.37		
	21-60	60-95	0.25-1.00	<0.06	0.11-0.30	6.6-8.4	<2	Very high	0.37		
KE	0-14	---	0.05-0.25	>2.0	0.20-0.50	5.6-7.8	<4	Low	----	---	---
Kenner	14-16	45-85	0.15-1.00	<0.06	0.12-0.18	5.6-7.8	<4	Low	0.32		
	16-45	---	0.05-0.50	>6.0	0.20-0.50	5.6-7.8	<4	Low	----		
	45-46	45-85	0.15-1.00	<0.06	0.12-0.18	5.6-7.8	<4	Low	0.32		
	46-75	---	0.05-0.50	>6.0	0.20-0.50	5.6-7.8	<4	Low	----		

TABLE 16.--PHYSICAL AND CHEMICAL PROPERTIES OF THE SOILS--Continued

Map symbol and soil name	Depth	Clay	Moist bulk density	Permeability	Available water capacity	Soil reaction	Salinity	Shrink-swell potential	Erosion factors		Organic matter
									K	T	
	In	Pct	G/cc	In/hr	In/in	pH	Mmhos/cm				Pct
Rt----------	0-17	5-20	1.30-1.70	0.6-2.0	0.09-0.16	4.5-6.0	<2	Low----------	0.28	5	.5-2
[illegible]	17-38	18-35	1.40-1.80	0.6-2.0	0.12-0.17	4.5-6.0	<2	Low----------	0.28		

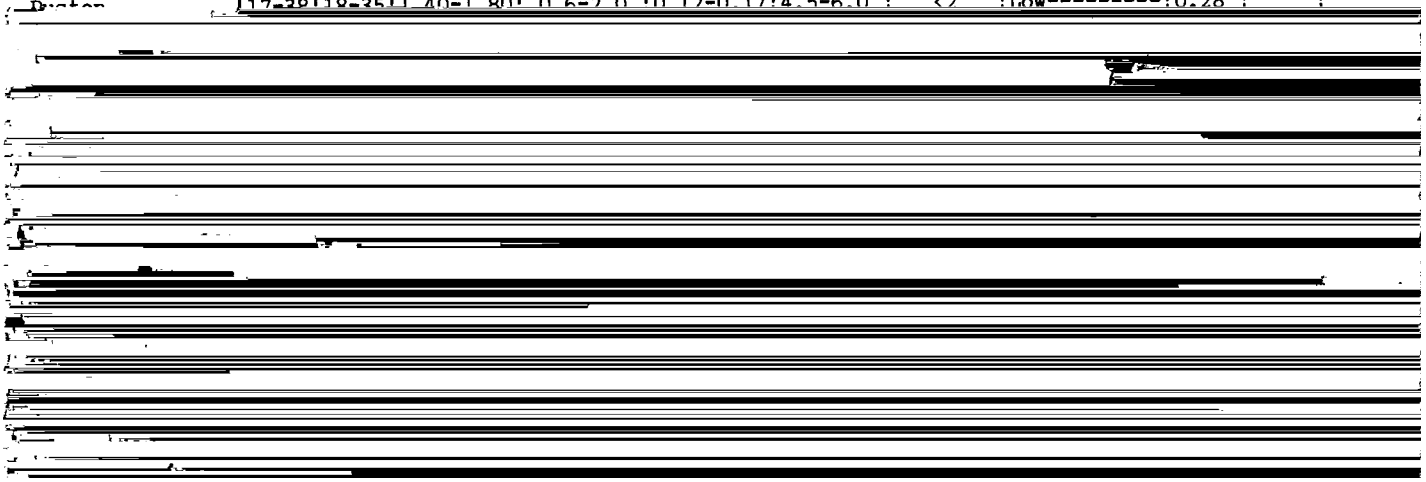


TABLE 17.--SOIL AND WATER FEATURES

["Flooding" and "water table" and terms such as "rare," "brief," "apparent," and "perched" are explained in the text. The symbol < means less than; > means more than. Absence of an entry indicates that the feature is not a concern or that data were not estimated]

Map symbol and soil name	Hydrologic group	Flooding			High water table			Subsidence		Risk of corrosion	
		Frequency	Duration	Months	Depth	Kind	Months	Initial	Total	Uncoated steel	Concrete
					Ft			In	In		
Aa, Ab---------- Abita	C	None--------	---	---	1.0-3.0	Apparent	Dec-Apr	---	---	High------	Moderate.
AC---------- Allemands	D	Frequent----	Very long.	Jan-Dec	+1-0.5	Apparent	Jan-Dec	8-25	16-51	High------	Moderate.
Ad---------- Allemands	D	Rare--------	---	---	0.5-4.0	Apparent	Jan-Dec	8-25	16-51	High------	High.
Aq. Aquents											
AR---------- Arat	D	Frequent----	Very long.	Jan-Dec	+3-0.5	Apparent	Jan-Dec	2-6	6-15	High------	Moderate.
AT: Arkabutla------	C	Frequent----	Brief to very long.	Jan-Apr	1.0-1.5	Apparent	Jan-Apr	---	---	High------	Moderate.
Rosebloom------	D	Frequent----	Brief to very long.	Jan-Mar	0-1.0	Apparent	Jan-Mar	---	---	High------	Moderate.
BD	D										

TABLE 17.--SOIL AND WATER FEATURES--Continued

Map symbol and soil name	Hydrologic group	Flooding			High water table			Subsidence		Risk of corrosion	
		Frequency	Duration	Months	Depth	Kind	Months	Initial	Total	Uncoated steel	Concrete
					Ft			In	In		
KE---------- Kenner	D	Frequent---	Very long.	Jan-Dec	+1-0.5	Apparent	Jan-Dec	15-30	>51	High-----	Moderate.
LF---------- Lafitte	D	Frequent---	Very long.	Jan-Dec	+1-0.5	Apparent	Jan-Dec	15-30	>51	High-----	Moderate.
LR---------- Larose	D	Frequent---	Very long.	Jan-Dec	+2-0.5	Apparent	Jan-Dec	2-8	5-15	High-----	Moderate.
Lt---------- Latonia	B	None-------	---	---	>6.0	---	---	---	---	Low------	Moderate.
MA---------- Maurepas	D	Frequent---	Very long.	Jan-Dec	+1-0.5	Apparent	Jan-Dec	15-30	>51	High-----	Moderate.
Md---------- Maurepas	D	Rare-------	---	---	1.0-3.0	Apparent	Jan-Dec	15-30	>51	High-----	High.
Mt---------- Myatt	D	Rare-------	---	---	0-1.0	Apparent	Nov-Apr	---	---	High-----	High.
My---------- Myatt	D	Frequent---	Brief	Nov-Mar	0-1.0	Apparent	Nov-Apr	---	---	High-----	High.
OB: Ouachita------	C	Frequent---	Brief	Dec-May	>6.0	---	---	---	---	Moderate	Moderate.
Bibb----------	C	Frequent---	Brief	Dec-May	0.5-1.5	Apparent	Dec-Apr	---	---	High-----	High.
Pg. Pits											
Pr, Pt--------- Prentiss	C	None-------	---	---	2.0-2.5	Perched	Jan-Mar	---	---	Moderate	High.
Rs, Rt--------- Ruston	B	None-------	---	---	>6.0	---	---	---	---	Moderate	Moderate.
Sa, Sh--------- Savannah	C	None-------	---	---	1.5-3.0	Perched	Jan-Mar	---	---	Moderate	High.
Sm---------- Smithdale	B	None-------	---	---	>6.0	---	---	---	---	Low------	Moderate.
St---------- Stough	C	None-------	---	---	1.0-1.5	Perched	Jan-Apr	---	---	Moderate	High.

- Absence

uration	Effective cation-exchange capacity (sodium)
	Pct
	33.6
	36.4
	31.8
	15.5
	15.1
	17.4
	20.7
	8.7
	15.5
	12.5
	17.7
	18.6
	1.7
	1.5
	1.8
	2.5
	13.3
	12.5
	11.9
	11.7
	1.7
	2.0
	2.6
	3.6
	3.3
	2.8
	2.6
	6.9
	6.7
	35.8
	30.7
	25.9

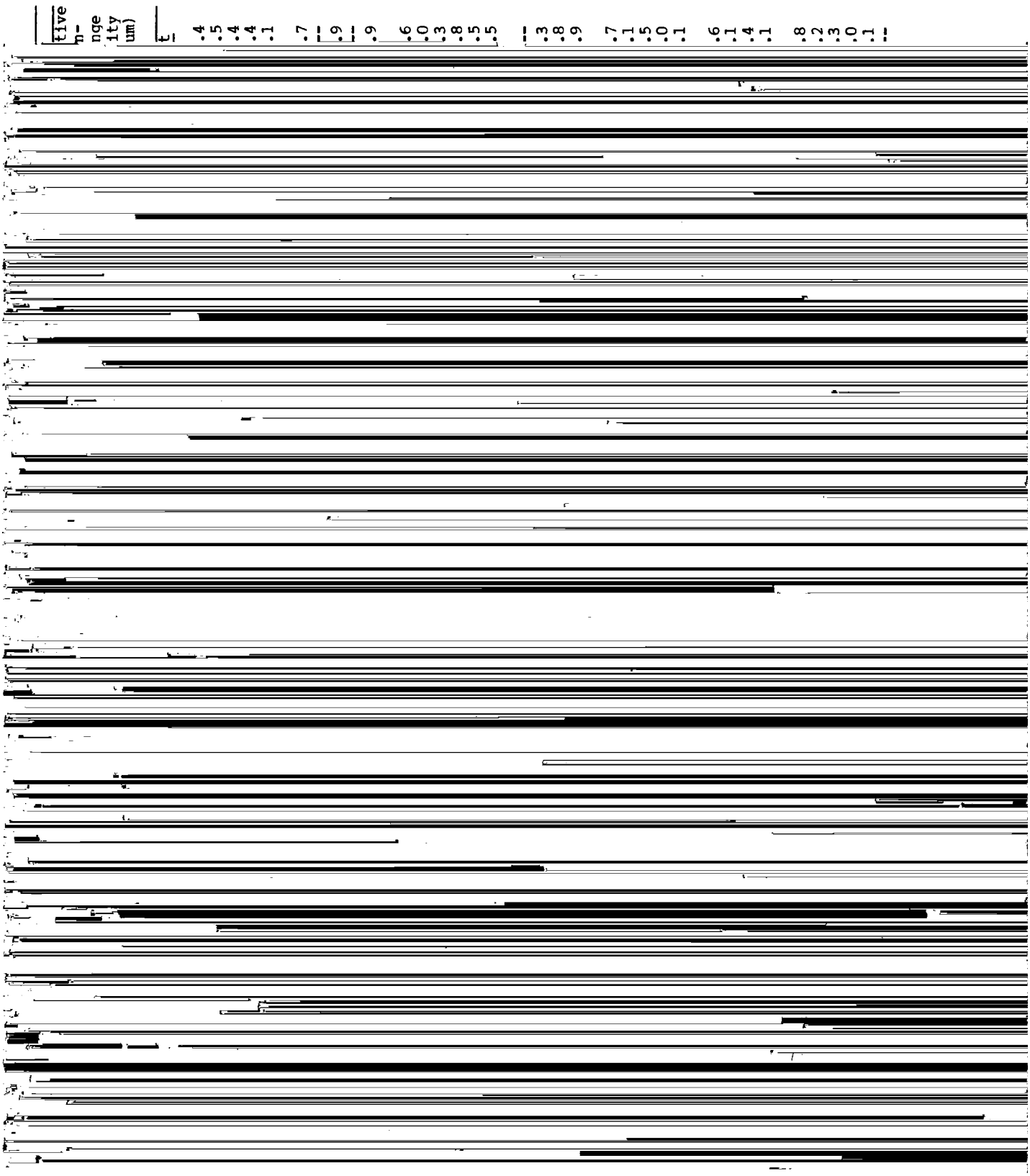

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TABLE 18.--FERTILITY TEST DATA ON SELECTED SOILS--Continued

izon	pH 1:1 H_2O	Organic matter content	Extract-able phos-phorus	Exchangeable cations						Total acidity	Cation-exchange capacity (sum)	Base satura-tion (sum)	Saturation	
				Ca	Mg	K	Na	Al	H				Sum of cation-exchange capacity (alumi-num)	Effective cation-exchange capacity (sodium)
		Pct	Ppm	Meq/100g								Pct	Pct	Pct
	5.2	4.43	8	0.2	0.1	0.1	0.2	2.8	0.4	20.5	21.1	2.8	73.7	0.9
w1	5.3	0.77	3	0.2	0.1	<0.1	0.1	2.1	0.2	11.0	11.4	3.5	77.8	0.9
w2	5.3	0.10	5	0.2	0.4	<0.1	0.2	3.3	0.1	5.5	6.3	12.7	78.6	3.2
w3	5.2	0.06	5	0.2	0.3	<0.1	0.2	3.7	0.1	7.0	7.7	9.1	82.2	2.6
w4	5.2	<0.01	5	0.2	0.2	<0.1	0.2	3.6	0.0	6.5	7.1	8.5	85.7	2.8
	4.9	2.58	5	0.2	0.1	<0.1	0.1	2.4	0.2	9.7	10.1	4.0	80.0	1.0
w1	4.9	0.15	5	0.2	<0.1	<0.1	0.2	2.2	0.4	3.9	4.3	9.3	73.3	4.7
w2	5.0	0.02	5	0.2	<0.1	<0.1	0.2	3.3	0.1	5.3	5.7	7.0	86.8	3.5
tx1	5.1	0.07	5	0.2	<0.1	<0.1	0.2	2.3	0.3	2.9	3.3	12.1	76.7	6.1
tx2	5.3	<0.01	5	0.2	<0.1	<0.1	0.2	1.2	0.3	1.9	2.3	17.4	63.2	8.7
	---	2.67	17	4.5	1.2	0.3	0.3	2.3	0.9	10.5	16.8	37.5	24.2	1.8
g1	---	0.63	5	3.8	0.9	0.1	0.2	4.1	0.4	9.2	14.2	35.2	43.2	1.4
g2	---	0.28	5	3.7	1.0	0.1	0.2	4.7	0.3	9.2	14.2	35.2	47.0	1.4
g3	---	0.15	5	4.3	1.4	0.1	0.2	5.0	0.4	9.0	15.0	40.0	43.9	1.3
p	---	1.38	108	0.3	<0.1	0.3	0.2	1.2	0.6	3.9	4.7	17.0	46.2	4.3
t1	5.4	0.10	5	1.5	0.6	0.1	0.2	1.8	0.6	4.8	7.2	33.3	37.5	2.8
t2	5.4	0.02	5	1.4	0.6	0.1	0.2	1.4	0.3	3.4	5.7	40.0	35.0	3.5
/E	5.4	0.02	5	0.8	0.5	<0.1	0.1	1.4	0.3	2.4	3.8	36.8	45.2	2.6
t	5.3	0.02	5	0.6	0.7	<0.1	0.3	2.2	0.0	3.4	5.0	32.0	57.9	6.0
	5.1	1.78	5	0.3	0.5	0.2	0.2	1.8	0.5	8.2	9.6	12.5	51.4	2.1
	5.3	0.63	5	0.3	0.6	0.1	0.3	2.4	0.4	6.2	7.5	17.3	58.5	4.0
t1	5.5	0.06	5	0.2	0.6	<0.1	0.2	2.2	0.5	7.2	8.2	12.2	59.5	2.4
t2	5.5	0.10	5	0.7	0.3	0.1	0.2	2.7	0.6	6.7	8.0	16.3	58.7	2.5
t3	5.4	<0.01	5	0.2	0.3	<0.1	0.3	1.9	0.3	4.3	5.1	15.7	63.3	5.9
	4.8	2.84	5	0.3	0.1	<0.1	0.2	3.1	1.1	12.0	12.6	4.8	64.6	1.6
/E	5.0	0.28	5	0.2	<0.1	<0.1	0.1	1.7	0.4	2.4	2.7	11.1	70.8	3.7
t1	5.1	0.10	5	0.2	0.1	<0.1	0.2	1.9	0.4	3.4	3.9	12.8	67.9	5.1
t2	5.2	0.06	5	0.2	0.1	<0.1	0.2	2.0	0.5	3.4	3.9	12.8	66.7	5.1
t3	5.3	0.02	5	0.3	0.6	<0.1	0.2	4.9	0.7	6.3	7.4	14.9	63.6	2.7

same as the typical pedon for the series. For the description and location of the soil, see the
heir Morphology."
.5 miles west of Madisonville, 0.3 mile north of Lake Pontchartrain, 0.5 mile east of Miltons
, T. 8 S., R. 11 E.

TABLE 19.--PHYSICAL TEST DATA OF SELECTED SOILS

[...]ization Laboratory of the Louisiana Agricultural Experiment Station. The symbol < means

[...]pth	Particle-size distribution								Water content at tension		Bulk density		
	Sand						Silt (0.25-0.002 mm)	Clay (0.002 mm)	1/3 bar	15 bar	Air dry	Field moist	Oven dry
	Very coarse (2.0-1.0 mm)	Coarse (1.0-0.5 mm)	Medium (0.5-0.25 mm)	Fine (0.25-0.10 mm)	Very fine (0.10-0.05 mm)	Total (2.0-0.05 mm)							
[In]	Pct								Pct (wt)		G/cm^3		
[...]-4	2.3	0.8	0.5	5.2	21.2	30.0	65.6	4.4	21.9	4.6	1.56	1.54	1.58
[...]-15	0.8	0.4	0.4	3.0	17.8	22.4	59.1	18.5	23.3	8.6	1.59	1.53	1.60
[...]-23	0.5	0.3	0.2	3.0	17.0	21.0	56.1	22.9	24.7	10.3	1.73	1.57	1.73
[...]-33	0.4	0.3	0.2	3.0	18.0	21.9	51.3	26.8	27.8	11.9	1.71	1.64	1.73
[...]-48	0.4	0.3	0.3	3.6	20.5	25.1	48.6	26.3	27.7	11.7	1.33	1.64	1.75
[...]-5	0.1	0.2	1.3	4.4	14.6	20.6	72.5	6.9	27.6	4.6	1.52	1.51	1.54
[...]-17	0.2	0.4	1.1	4.3	14.7	20.7	69.9	9.4	23.5	4.8	1.61	1.60	1.64
[...]-24	0.2	0.4	1.0	2.7	13.1	17.4	68.8	14.5	25.6	7.2	1.58	1.58	1.60
[...]-33	<0.1	0.5	1.3	4.4	14.8	21.0	57.7	22.0	30.1	11.0	1.76	1.65	1.79
[...]-45	0.1	0.6	0.7	4.1	11.3	16.8	57.7	25.3	32.8	14.2	1.84	1.68	1.86
[...]-66	0.1	0.3	0.7	4.2	13.6	18.9	60.0	20.6	28.9	11.1	1.86	1.75	1.88
[...]-5	<0.1	<0.1	0.7	5.8	15.3	21.9	66.6	11.5	29.0	6.9	1.42	1.37	1.43
[...]-20	<0.1	<0.1	0.5	5.6	14.5	20.7	67.0	12.3	27.2	6.7	1.49	1.46	1.49
[...]-28	<0.1	0.3	0.5	5.2	14.0	20.0	66.8	13.2	27.4	6.8	1.51	1.49	1.52
[...]-36	<0.1	<0.1	<0.1	4.4	12.3	16.8	61.8	21.4	28.7	9.7	1.78	1.62	1.82
[...]-66	<0.1	0.1	0.4	3.9	11.8	16.2	62.1	21.7	28.7	11.4	1.91	1.67	1.91
[...]-4	0.1	0.5	1.8	6.6	26.7	35.7	61.4	2.9	24.0	3.6	1.92	1.66	1.95
[...]-17	<0.1	0.2	1.3	6.7	26.8	35.0	55.8	9.2	17.3	4.0	1.30	1.28	1.30
[...]-27	<0.1	0.2	1.2	6.0	25.3	32.7	55.2	12.1	20.5	5.2	1.54	1.54	1.54
[...]-34	<0.1	0.1	0.9	5.6	23.5	30.1	48.8	21.1	26.4	9.1	1.60	1.59	1.62
[...]-48	<0.1	0.1	0.7	4.5	19.7	25.0	45.5	29.5	29.9	12.9	1.68	1.62	1.78
[...]-64	<0.1	0.1	0.9	6.3	24.9	32.2	44.3	23.5	26.4	11.4	1.76	1.70	1.78
[...]-5	1.0	0.9	2.6	19.8	14.4	38.7	52.1	9.2	22.1	5.6	1.90	1.74	1.93
[...]-24	0.7	0.5	1.5	16.9	11.8	31.4	46.0	22.6	22.2	9.3	1.48	1.44	1.50
[...]-34	0.5	0.4	1.3	17.8	11.7	31.7	40.8	27.5	24.0	11.7	1.60	1.55	1.62
[...]-54	0.2	0.6	1.2	20.9	11.1	34.0	33.0	33.0	24.0	14.6	1.54	1.45	1.57
[...]-62	0.2	1.1	1.4	31.1	9.0	42.8	29.1	28.1	24.5	15.9	1.69	1.65	1.71
[...]-6	3.4	4.6	5.0	7.8	7.4	28.2	60.5	11.3	29.7	8.7	1.50	1.48	1.51
[...]-17	3.3	3.3	3.6	7.0	7.2	24.4	59.0	16.6	23.6	8.0	1.56	1.54	1.57
[...]-26	3.6	5.3	4.3	6.6	6.6	26.4	54.5	19.1	23.8	9.5	1.59	1.56	1.61
[...]-37	2.0	5.6	5.0	7.6	7.6	27.8	50.5	21.7	22.9	11.0	1.67	1.62	1.71
[...]-52	1.6	3.7	3.0	7.3	8.5	24.1	48.9	27.0	25.8	14.3	1.66	1.62	1.71
[...]-72	2.8	8.4	5.7	6.8	8.2	31.9	33.0	35.1	26.4	15.1	1.68	1.62	1.78

TABLE 19.--PHYSICAL TEST DATA OF SELECTED SOILS--Continued

1.5 miles east of Mandeville, 0.5 mile south of Highway 190, 0.4 mile north of Highway
ze Park, 500 feet north of camping area, Spanish Land Grant 37, T. 7 S., R. 11E.
4 miles northwest of Talisheek, 4 miles southwest of Bush, 3 miles north of Highway 435,
21, 100 feet east of Moneyhill Plantation Road, 20 feet north of section line, SE1/4SE1/4
.; in an area of Savannah fine sandy loam, 1 to 3 percent slopes. This pedon has mottles in
ave chroma of 3 rather than 2. In addition, the Bt horizon is thicker than allowed for the

3 miles northwest of Waldheim, 2.4 miles east of Lee Road, 0.3 mile north of Pat O'Brien
ghway 1082, 200 feet south of farm road, NE1/4NW1/4 sec. 30, T. 5 S., R. 12 E.; in an area
am, 1 to 3 percent slopes. This pedon is a taxadjunct to the Savannah series because the
B horizons is slightly lower than allowed in the series range. In addition, the Bt horizon

e same as the typical pedon for the series. For the description and location of the soil,
les and Their Morphology."

...p. The symbol < means less than]

CaCl2 1:2[2]	Extractable iron	Extractable aluminum	Extractable hydrogen	Bray No. 1 Extractable phosphorus
	Pct	---Meq/100g---		Ppm
6.2	0.2	0.0	0.0	14
4.2	0.2	0.0	0.0	<5
4.1	0.5	8.0	0.7	<5
4.1	0.4	10.1	1.5	<5
4.2	0.3	7.2	0.8	<5
5.7	0.2	0.0	0.0	<5
6.3	0.2	0.0	0.0	<5
6.4	0.3	0.0	0.0	<5
6.6	0.4	0.0	0.0	<5
6.6	0.5	0.0	0.0	<5
6.5	0.5	0.0	0.0	<5
4.1	0.1	0.0	0.1	<5
5.1	0.2	4.1	0.5	<5
4.2	0.2	3.9	0.2	<5
4.4	0.4	3.2	0.0	<5
5.2	0.6	0.0	0.4	<5
3.8	0.1	2.1	0.1	<5
4.0	0.2	3.6	0.2	<5
4.1	0.2	4.3	0.4	<5
4.1	0.3	6.1	0.6	<5
4.1	0.4	4.5	0.7	<5
4.4	0.8	1.1	0.6	<5
4.3	0.2	1.8	0.2	4
4.3	0.6	2.9	0.5	4
4.3	0.9	3.4	0.2	4
4.3	1.2	3.7	0.0	2
4.3	1.0	3.3	0.2	<1
4.5	0.5	0.7	0.6	<5
4.4	0.3	2.1	0.4	<5
4.3	0.6	3.3	0.6	<5
4.3	0.8	2.8	0.8	<5
4.2	1.2	3.1	0.6	<5
4.4	2.2	3.0	0.6	<5

tinued

.4 mile north of Highway 1089 in
., R. 11 E.
iles north of Highway 435, 2.5 miles south of
SE1/4SE1/4 sec. 36, T. 5 S., R. 12 E.; in an
fragipan layer that have chroma of 3 rather

mile north of Pat O'Brien Road, 500 feet west
an area of Savannah fine sandy loam, 1 to 3
ent in the A and B horizons is slightly lower

n and location of the soil, see the section

TABLE 21.--CLASSIFICATION OF THE SOILS

Soil name	Family or higher taxonomic class
Abita	Fine-silty, siliceous, thermic Glossaquic Paleudalfs
Allemands	Clayey, montmorillonitic, euic, thermic Terric Medisaprists
Arat	Fine-silty, siliceous, nonacid, thermic Typic Hydraquents
*Arkabutla	Fine-silty, mixed, acid, thermic Aeric Fluvaquents
Barbary	Very-fine, montmorillonitic, nonacid, thermic Typic Hydraquents
Bibb	Coarse-loamy, siliceous, acid, thermic Typic Fluvaquents
Brimstone	Fine-silty, siliceous, thermic Glossic Natraqualfs
Cahaba	Fine-loamy, siliceous, thermic Typic Hapludults
Clovelly	Clayey, montmorillonitic, euic, thermic Terric Medisaprists
Guyton	Fine-silty, siliceous, thermic Typic Glossaqualfs
Harahan	Very-fine, montmorillonitic, nonacid, thermic Vertic Haplaquepts
Kenner	Euic, thermic Fluvaquentic Medisaprists
Lafitte	Euic, thermic Typic Medisaprists
Larose	Very-fine, montmorillonitic, nonacid, thermic Typic Hydraquents
Latonia	Coarse-loamy, siliceous, thermic Typic Hapludults
Maurepas	Euic, thermic Typic Medisaprists
Myatt	Fine-loamy, siliceous, thermic Typic Ochraquults
Ouachita	Fine-silty, siliceous, thermic Fluventic Dystrochrepts
Prentiss	Coarse-loamy, siliceous, thermic Glossic Fragiudults
*Rosebloom	Fine-silty, mixed, acid, thermic Typic Fluvaquents
Ruston	Fine-loamy, siliceous, thermic Typic Paleudults
Savannah	Fine-loamy, siliceous, thermic Typic Fragiudults
Smithdale	Fine-loamy, siliceous, thermic Typic Hapludults
Stough	Coarse-loamy, siliceous, thermic Fragiaquic Paleudults

* The soil is a taxadjunct to the series. See text for a description of those characteristics of the soil that are outside the range of the series.

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